1850
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1859

MINUTES OF THE
BRITISH METEOROLOGICAL SOCIETY
1850-1859

Minutes of the British Meteorological Society from 1850 to 1857.

Rough Abstract

of the

Minutes

contained in this Volume

by

G. J. Symons

1850 April 4 – Hartwell – Whitbread in chair – 10 present
Treas & Sec to order such books as they want –
Mr Clark of Moorgate St to be Stationer
Secretary to invite suitable persons to become members.
5 Members elected –
Members to be admitted without ballot, until further order –
Next meeting to be at Dr Lee's rooms, 5 Doctors Commons on May 7th

1850 May 7 Doctors Commons – Whitbread in chair – 6 present
Secretary reported issue of invitations,
75 Members enrolled
Additional Members of Council elected.
£5 to be paid to Assistant Secretary – John Sanders
Taylor & Francis appointed printers to the Soc.
Mr Glaisher consenting, the printing of 500 copies of his Diurnal range tables ordered.
Printed wrappers ordered –
Ordered that the Secretary provide himself at the cost of the Society with sufficient extra copies of all papers printed by him to send one to each Member.
Committee appointed to draw up an Address to the Public.

1850 June 4 Mr Clark's 13 Moorgate St – Whitbread in chair – 6 present
Diurnal range tables not progressing –
Treasurer had not made much progress with Bye-laws.
Address to Public, laid upon table.
21 Members enrolled
Treasurer reported receipt of 41 subscriptions
All Members who have not paid to be applied to.

1850 July 2 – Moorgate St – Whitbread in chair – 7 present

Letter read from Prof Henry announcing the inauguration of the Smithsonian Meteorological System.

Diurnal range tables reported as at printers; when printed a copy to go to each member

10 Members elected.

Mr Glaisher submitted a blank form for the entry of observations, it was approved and adopted, one copy to go to each Member.

Mr G. said that since 1844 Meteorological Returns had been collected by himself and the Registrar General, at first from only 9 or 10 stations but in 1850 from 40, that he wished the Society to be connected with these stations and the use of the form just adopted would effect this as it would be common to both. He explained that the observations were sent direct to him, and by him prepared for publication in the Quarterly Returns. He hoped that eventually all the observations would come into the possession of the Society and that it would carry on the series when he might be unable to do so.

After discussion – Resolved – "That all observations collected by the form just approved be given to Mr Glaisher, for combination with those collected by himself and the Registrar General for publication in the Registrar General's Quarterly Reports or otherwise and be considered as his own property" –

Resolved "That £52 a year be paid to Mr G. to assist him in his several works so that he may have some time to devote himself to the work of the Society.

Mr Glaisher suggested that the Assistant to whom he should pay this grant should be called the Assistant Secretary of the Society – Matter left in Mr Glaisher's hands

47 Additional Subscriptions received, making total of £88,

27 Members reported in arrear.

1850 Aug: 7 – Moorgate St – President (Whitbread) in Chair – Only Secretary present.
Resolved – That 2000 copies of the Observation form be printed, and 500 copies of the Diurnal Range tables.

1850 Sepr 17 – Moorgate St – Whitbread in chair – 5 present –
Action on Aug 7th approved –
~~Following~~ Letters read from Mr W. H. White, Sec: of Met: Soc: of London, stating that at Council Meeting of the Met: Soc: of London held on Aug: 14th 1850 it was resolved that seeing to the establishment under favourable auspices of the Brit: Met: Soc: the objects of which are identical with those of the Met: Soc: of London the latter is hereby dissolved, the papers of the Met: S. of London are to be handed over to the Brit: Met: Soc:, and the Members recommended to join the Brit: Met: Soc: –

Resolved – That the members of the Met: Soc: of London be elected by Ballot in the usual way.

That the Secretary write to Mr Luke Howard and ascertain if he has any copies of his Essay on Clouds available for distribution among the members –

1850 Oct 8 – – Whitbread in Chair – 6 present

Mr Hugh Gordon appointed Ass: Sec:

300 Extra copies of Mr Glaisher's Phil Trans paper on "Thermometric Obs at Somerset House &c." to be printed at cost of Society –

1850 Nov 12 – Moorgate St – Whitbread in Chair – 7 present

150 copies of Nomenclature of Clouds presented by Luke Howard –

Treasurer submitted Bye Laws

1850 Dec 10 – Moorgate St – Dr Lee in Chair – 6 present

Letter read from Mr J. W. G. Gutch ~~relative to~~ offering to deliver the books and papers now in his hands belonging to the Met: Soc: of London, to the Brit: Met. Soc. upon receiving permission so to do from Lord Robert Grosvenor the President of the Met; Soc: of London and on payment of £2·10·0 for postages paid by him –

1851 – January 14 – Moorgate St – Whitbread in Chair 5 present –

Secretary announced receipt of a "set of current charts" from Capt Maury; of a pamphlet by P. Clare "Account of thunderstorms near Manchester, 16 July 1850; and that Mr Drach had offered a paper "Deductions from Mr Glaisher's Meteorological Corrections – Resolved that Mr Drach be advised to publish it in some periodical.

Secretary submitted the first a series of Weekly Meteorological Reports prepared by him for the Institute Medical Journal – Secretary instructed to ascertain upon what terms copies could be obtained for all the Members.

Bye Laws finally adopted.

1851 Feb 11 Moorgate St – Whitbread in Chair – 7 present

Resolved – that a list of Members be printed –

Letter read from Dr Barham of Truro urging the Society to take up the subject of Medico Climatology – Resolved That the Society cannot undertake expenditure upon the subject.

1851 Mar 11 Moorgate St – Whitbread 7 present

Resolved that all Life compositions be funded.

1851 March 25 – Moorgate St – Whitbread in the Chair – 7 present

No business of importance.

1851 – March 25 – Ordinary Meeting – Moorgate St – Whitbread in Chair – 18 present

President announced formation of Society

Mr Glaisher (Secretary) described its objects –

Mr Glaisher read a paper on the heavy rain of March 15, 1851, when 1.72in fell at ~~Greenwich~~ Lewisham between 1 a m and 4 p m.

The Institutes were read through and adopted, excepting the one which imposes an entrance fee which was to be suspended until further resolution.

1851 May 27 – Moorgate St – Whitbread – 4 present

No business of importance

1851 May 27 – Anniversary Meeting – Whitbread in Chair – 16 present & 2 visitors

Report received and adopted and ordered to be printed –

Mr T. Hopkins read a paper "On the daily variations of the reading of the barometer" and Rev J. B. Reade exhibited part of a tree struck by Lightning

1851 June 24 – Moorgate St – Whitbread in Chair – 7 present

No special business –

1851 Aug 26 – Moorgate St – Rev C Lowndes in Chair – 4 present

No special business

1851 – Aug 26 – Ordinary Meeting – Whitbread in Chair –
Dr Hoskins of Guernsey submitted a paper "on the Climate of Guernsey", Mr G. Smith of Liverpool one "On the temperature during and after the Eclipse of July 28 1851; and Dr Buist one "On the fall of rain at Bombay from 1817 to 1850.

1851 Oct 28 – Moorgate St – Whitbread in Chair – 5 present –
Some little discussion took place as to a monthly publication by the Society but it was decided to do nothing at present on account of the expense.

1851 Nov 25 – Moorgate St – Dr Lee in Chair – 6 present
Some further discussion as to a publication, but the subject again postponed.

General Meeting } 1851 – Nov 25 – Ironmonger Lane – Whitbread in Chair –
Two letters read but no other business transacted.

1851 Dec 22 – Moorgate St – Whitbread in Chair – 5 present
Resolved that the Society hold its meetings at the rooms of the Chemical Society in Cavendish Square, the rent of the same to be £20 per ann:
Resolved that henceforth Admission Fees be required.

1852 – Jan 6 – Cavendish Square – Whitbread in Chair – 7 present –
No special business –

1852 – Feb 24 – Whitbread in Chair – 7 present
Secretary read a pamphlet by Capt: Maury consisting of correspondence respecting and entitled "On the establishment of an Universal system of Meteorological Observations by Sea and Land" Washington 1851 –
Secretary Glaisher pointed out that in this work the recommendations of Capt (afterwards General Sir Henry) James were put forward, and as he considered that many of them were wrong it was resolved that he draft a letter pointing out its defects and that the Council meet on March 2

1852 – March 2 – Whitbread in Chair – 9 present –

Mr Glaisher submitted his draft letter to Capt Maury, and it was adopted –
(This letter is printed <u>in extenso</u> in the 2nd Report of the B.M.S.)

1852 – March 23 Whitbread in Chair – 7 present

Richardson appointed Ass: Sec:

1852 – March 23 – <u>Ordinary</u> Meetg – Whitbread in Chair

Several short papers read no traces of which are to be found in the Society's MSS. among them was one by J. F. Miller on "The Rainfall of the English Lake District in 1851 – A paper was also read on "Medical and Agricultural Meteorology" by Dr Moffat –

1852 April 27 – Whitbread in Chair – 7 present –

Letter received from Captn Maury, acknowledging that of the Society, and stating that an International Congress would be held in the Autumn – Resolved that the Secretary see Admiral Beaufort and endeavour to ascertain what steps the Navy would take.

1852 April 27 – Ordinary Meetg G. Leach in Chair –

The reading of Dr Moffat's paper was concluded and one or two short papers were read.

1852 May 18 – Whitbread in Chair – 8 present

Report adopted and also House list of New Council

1852 May 25 – Annual Meeting –

Report adopted – Council elected –

Paper read "On the Climate of Guernsey by Dr Hoskins

1852 June 24 – Whitbread – 6 present

Sec: reported the offer of a MS. Meteor. Register from Nova Scotia for 18 years 1776 to 1794, of ~~two~~ at least two and often more observations daily of wind direction, with temperature observations during 3 years – the whole for £2.10.0 – Resolved – Not to be purchased without seeing the MS. – Resolved that 250 copies of Dr Hoskin's paper be purchased. Resolved that 750 copies of the annual report be printed.

1852 June 24 <u>General Meeting</u> – Whitbread –

Papers read – W. B. Paul on the Earthquake in Somersetshire April 3 1850

J. Glaisher – Meteorology of England during 1848.

1852 Oct 26 – Rev J B Reade in Chair – 6 present

Resolved that the Nova Scotia register be not purchased.

Read letter from Mr B. Barrow urging the publication of a monthly periodical Journal of the Society's Proceedings –

1852 Nov 23 Dr Lee in Chair 6 present

500 copies of the Institutes to be printed

1852 Nov 23 <u>Ordinary Meeting</u> – Dr Lee in chair 12 present

Several short papers read on Meteors of Aug 12, & Oct 5 1852

1853 Jan 25 – Whitbread – 9 present

No special business

1853 Jan 25 – <u>Ordinary</u> Whitbread 10 present

Papers read "On the amount of evaporation from two surfaces of water, each with an area of 9 square feet, the one under cover, the other open, as well as the fall of rain in the year 1852 at Woolwich by Capt Clerk R.A.; and several short ones on the weather of 1852.

1853 – Feb 22 – Whitbread – 4 present –

Mr Glaisher was too ill to attend

Resolved that Members non resident in the British Isles shall during their absence be free from payment of Subs^{ns}

1853 Feb 22 – Ordinary meeting – Whitbread in Chair
Three short papers read –

1853 March 22 – Whitbread – 6 present –

Secretary still absent and no business transacted.

1853 April 26 No minutes – Sec^y ill

1853 May 24 – Annual Meeting – No minutes – Sec^y ill

Council elected

1853 Oct 25 – G. Leach Pres: in Chair 10 present

Correspondence read with Dr Moffat respecting Ozone

Treasurer reported many Members in arrear – total amount about £200

Committee appointed to investigate the matter and report

1853 Nov 22 G. Leach Pr in Chair 10 present

Committee report £244 due, instructed to try and collect it.

1853 Nov 22 Ordinary – Leach –

Several papers on Meteors read, also one on the rainfall of 1852-53 by Mr Glaisher.

1854 Jan 24 – Council – Whitbread, & Leach – 10 present

Committee reported that upwards of £100 of arrears had been collected.

A printing Committee appointed

— General Meeting – G. Leach Chair

Papers read "On the law of the variation of the wind" by C. Bulard.

"On the remarkable meteorological particulars of the last Quarter" by Mr Glaisher;

1854 Feb 28 Council – Leach P. Chair 11 present

Report adopted & 1000 copies ordered.

5000 forms for observations ordered.

Letter read from J. F. Miller offering a summary of his obs^ns. on the rainfall and temperature of the Lake District – Resolved that the Society cannot afford to print it.

— General Meeting – No minutes –

1854 March 28 – Council – Whitbread in Chair – 6 present

No special business

— General Meeting – Whitbread –

Papers read – Dr Moffat "On Medical Meteorology & Atmospheric Ozone"; Dr. Smallwood "Meteorological Report for Isle Jesus, Canada for 1852"

1854 April 25 – Council – Perigal in Chair 3 present

House list prepared

1854 May 19 – Council – Whitbread in Chair 5 present

House list approved – also Report

1854 May 23 – No minutes

1854 Oct 24 Whitbread in Chair – 8 present

Dates of Meeting fixed

1854 - Nov 28 - Council - Dr Lee in Chair - 8 present

Dr Sutherland applied for £100 for instruments for S. Africa, to be told that the Soc: has no funds for the purpose.

The arrangements at Cavendish Sqre having been altered & become unsatisfactory, Committee appointed to consider.

— General - Dr Lee in Chair

Papers - "On the Weather and the Hops" by Mr Doggett, and several on Meteors.

1855 - Jan 23 Mr Whitbread in Chair 6 present -

Secretary ill, and nothing of importance done.

— General - Mr Whitbread in Chair

Papers read - "On the means of determining the actual amount of evaporation from the Earth's surface by Dr G. Buist. "On the weather and the crop of Barley" by Mr Doggett

1855 - Feb 27 - Dr Lee in Chair 7 present

Correspondence read from Dr Richardson, offering to print Proceedings of the Society in his "Quarterly Journal of Public Health" if the Socy will buy copies for all the Members at 7s 6d each per annum -

Resolved - That it would be better for the Society to publish separately, and that this subject be considered at the next meeting.

1855 March 27 - Council G. Leach P. in Chair 5 present

Nothing important done.

— General - Dr Thomson in Chair -

Paper read by Mr Glaisher - On the severity of the past winter, and on Snow Crystals observed during it -

Resolved that it is expedient that this paper be printed <u>in extenso</u>

1855 April 24 - Council - G. Leach P. in Chair 8 present -

House list prepared.

Resolved that Mr Glaisher's paper be printed, the excess beyond £30 to be defrayed by subscription.

1855 May 22 Council – G. Leach P. in Chair 9 present

House list prepared

1855 – July 31 – Council at Hartwell Ho: Dr. Lee P. in Chair 4 present

Nothing of importance done

1855 Aug 2 – Council at Hartwell Ho: Dr. Lee P. in chair 7 present

Nothing of importance done

1855 October 30 – Council – Cavendish Sq – G. Leach in Chair 8 present

Secretary announced legacy of £200 duty free from H. Lawson FRS VPM.S.

also presentation to the Council by Mr. Walker of 21 copies of the Electrical Mag:

1855 – Nov 27 – Council – Dr. Lee P. in chair – 11 present

Letter having been read from Lieut. Col: James urging the desirability of holding a conference on Land Meteorology – Resolved that such a Conference is desirable provided it be attended by persons qualified to represent the Science of the Country – Further consideration to be given on Decr. 4th.

– General – Dr. Lee P in chair –

Papers unimportant – except perhaps – Negretti – On large bulb mercurial minimum thermometer.

1855 Dec 4 – Dr. Lee in Chair – 11 present –

Col James' letter further considered, & Secretary directed to say that the Council approve the suggestion, & will send deputies to any such conference.

1856 - Jan 23 - Council - Whitbread in Chair - 11 present -

Hastings Met: Soc: desired that their Secretary (whoever he might be) should be a Member of the Brit: Met. Soc: but that the Soc: should not have to pay an entrance fee each time the office bearer was changed -

Resolved that the Society be advised to elect "The Hastings Meteor: Observer"

— General -

Papers read unimportant -

1856 Feb 6 - Whitbread in Chair - 7 present.

Treasurer reported total arrears about £400 - Resolved that prompt steps be taken to collect all arrears.

1856 March 25 - Dr Thomson in Chair 7 present -

Receipt acknowledged of Mr Lawson's legacy, and of £130 of arrears of subscriptions -

Several donations towards cost of engraving snow crystals announced,

Resolved that the blocks of the snow crystals be considered as Mr Glaisher's property.

— General - Papers read Dr T H Barker "On the Ozonometers of Schönbein & Moffat" and Dr Smallwood "On the Meteorology of 1855 at Isle Jesus, Canada East.

1856 April 22 - Council - Whitbread in Chair - 7 present

House list prepared -

1856 May 27 - Council - Dr Lee P. in Chair 8 present

Treasurer stated that many Members were still in arrear.

Annual Report considered

Secretary reported that Mr Tatem proposed to give his Father's Met: MS. to the Society -

— General - Papers read "Influence of Atmospheric Conditions on the Urine" by Dr Moffat and "On the weather in connection with the Wheat Crops by Mr F. W. Doggett

1856 - Oct 28 - Council - Whitbread in chair - 7 present

Capt FitzRoy, asked the Council to assist him in obtaining an instrument to show the true temperature of the sea at great depths.

1856 Nov 25 – H. Perigal in Chair – 9 present –

Chemical Soc: moving to Burlington House, Committee appointed to consider future place of meeting of B.M.S.

— General – Dr Lee P. in chair –

Papers read Dr Moffat "Ozone observations at different heights".

1857 – Jan 27 – Beardmore in Chair – 10 present

Resolved that the Soc: continue to meet at Cavendish Square at present.

— General – Whitbread in Chair –

Papers read – Mr Glaisher "On mean temperature of every day 1814–56" and M. Poëy On the Mechanico physical effects of Lightning –

1857 Feb 24 – Sopwith in Chair 10 present –

Resolved that Mr Glaisher's paper on temperature be printed as soon as possible.

1857 Mar: 24 – Council – Beardmore in Chair – 9 present

House list prepared

1857 April 28 – Council Whitbread in chair 8 present

No special business

1857 May 26 Council – Dr Lee P. in chair – 10 present

House list further considered

— Annual General – Dr Lee P. in chair

Report read & adopted

1857 – Oct 27 – Council at Mr Beardmore's rooms – Whitbread in chair – 7 present

Committee appointed to seek for Rooms.

1857 Nov 24 – Council at Mr Beardmore's – Stephenson in chair – 7 present

Mr Stephenson undertook to apply to I.C.E. for use of their rooms.

— General – R. Stephenson P. in Chair –

Papers – J. Glaisher "On the fall of rain in London Oct 22 1857" Dr Moffat "On the destruction of Ozone by the products of Combustion"

1858 Jan 20 – Council – at Rooms of I.C.E. Dr Thomson in Chair – 9 present

Thanks voted to I.C.E. for offer of use of rooms.

1858 Feb 24 – Council – R. Stephenson P. in Chair 12 present

Ordered that a circular inviting observations during the Solar Eclipse be issued.

Reported – that the books of the Society are – some at Doctors Commons, some at Cavendish Sqre and others elsewhere –

Resolved – That the books be collected and a catalogue made.

1858 June 9th – Council – R Stephenson P. in Chair – 11 present

House list prepared.

Library Committee to have £10 for binding.

Annual report considered.

Mr Whitbread requested to try & collect arrears.

— General & Annual – R. Stephenson P. in Chair

Report read & adopted

Papers read – S M Drach "On hourly obs: at Greenwich" 1856; G. J. Symons "On the thunderstorms in 1857"; J Glaisher "On the periodical phenomena 1855–57."

1858 Oct 27 – Council – R. D. Thomson & R. FitzRoy in Chair – 12 present

Secretary announced the establishment of 11 stations in N.S. Wales

Secretary said 50 copies of Sandeman's Met: Elements British Guiana had been sent to him for distribution –

1858 Nov 16 – Council – Mr Beardmore in Chair – 8 present

No special business

1859 Jan 19 Dr Thomson in Chair – 8 present

Mr G. wished to know whether the Council would take any part in the B.A. Balloon experiments – Resolved that a Committee be formed to correspond with the B.A.

Mr Glaisher's remarks, 1850 April 3
at Hartwell House relative to the necessity of forming a
good Meteorological Society

There is no branch of Physical Science in which so great cooperation of so many observers is required as in Meteorological researches in order to be able to trace the recorded effects to their causes and hence to deduce the laws of atmospheric phenomena.

Causation must be an element in the enquiry but it is evident that this cannot be unless a good, uniform and widely extended cooperation be established of persons resident in different parts of the Country and the equally important & truthful discussion of their results for the purpose of ascertaining causes of a general nature be also followed out. When this is done and normal values of the different Meteorological elements found their abnormal differences will indicate the amounts and the seats of local disturbances.

In the year 1823 a Meteorological Society was formed in London & continued for several years first under the presidency of D^r. Birkbeck & afterwards under that of Lord Rob^t. Grosvenor M.P. This Society published one volume of transactions an introduction being written by D^r. Mc Intyre. During the last few years the advance in this branch of human knowledge has been great and from this Country being far behind some others in these investigations, It has now a far better organised system for these researches, and if a steady progress continues we shall be where we ought to be before any other Country in the world.

The results at present obtained are applied to many important investigations. Those now in progress in the Office of the Registrar General may be mentioned amongst others. Several diagrams of diseases have just been formed in that Office in connexion with the ac

of the recent meteorological investigations

Also the fall of rain in different places is now forming an important subject of investigation with the view of supplying large towns with water from this source.

There is no need to particularise all the advantages that would follow to Astronomers Agriculturalists Mariners Physicians & Philosophers of all classes by a successful study of the laws of Meteorological changes.

Viewed in all circumstances it seems to be most desirable that an endeavour should now be made to establish a Meteorological Society such as will in earnest insist upon good & truthful observations from its members and such a Society would produce results of great benefit to the Public.

At a Meeting held on the 3rd day of April 1850 at Hartwell House near Aylesbury in the County of Buckingham at which were present

John Lee Esqr of Hartwell L.L.D. F.R.S. F.R.A.S

The Reverend Samuel King of Latimer, Rec. Chesham ~~Bucks~~ F.R.A.S

The Reverend Joseph Bancroft Reade F.R.S. of Stone Vicarage near Aylesbury ~~Bucks~~. The Reverend Charles Lowndes of Hartwell, Rectory, near Aylesbury ~~Bucks~~, F.R.A.S. ~~and~~ Samuel Charles Whitbread Esqr of Cardington ~~near Bedford~~ F.R.A.S. James Glaisher Esq. F.R.S F.R.A.S of Dartmouth Terrace, Blackheath. Edward Joseph Lowe Esq. F.R.A.S of Highfield House ~~Beeston Villa~~ near Nottingham. Vincent Fasel Esqr. F.R.A.S of Stone near Aylesbury ~~Bucks~~. John Drew Esqr F.R.A.S of Cumberland Place ~~Terrace~~, Southampton. and William Rutter Esqr. F.R.A.S of Adelaide Road, Haverstock Hill.

Mr Whitbread was called to the Chair

The Chairman opened the proceedings by stating that a necessity existed for the formation of a Society the objects of which should be the advancement and extension of Meteorological Science, by determining the laws of Climate and of Meteorological phenomena in general. The practical importance of these determinations at present as applied to Sanitary Measures, as well as its importance to Agriculture, to Mariners, and indeed to all classes of persons is great.

He adduced various arguments in support of his statement and after several observations made by the gentlemen present & a paper of memoranda read by Dr Lee, the following resolutions were unanimously adopted.

That a Society for the objects aforesaid be now formed to be called "The British Meteorological Society"

That the Society consist of ordinary and honorary Members, and that the aforesaid Gentlemen be the original and ordinary Members with power to add to their number

That the officers of the said Society shall consist of a President, Vice Presidents, a

Treasurer and Secretaries, and a Council of which ~~Council~~ the President. Vice Presidents Treasurer and Secretary should be ex-officio Members. Three Members of such Council do form a Quorum

That for the current year ending the 31st day of December 1850. Mr Whitbread be President Dr Lee Treasurer. Mr Glaisher Secretary and Messrs King, Reade, Lowndes, Lowe. Drew, Fasel and Rutter Members of the Council with power ~~as the Society~~ as the Society may hereafter see fit to increase the Number.

That the annual subscription each of the present and future ordinary Members of the Society be £1. for the current year to end on the 31st day of December.

That the Meetings of the Society be held on the 1st Tuesday in each Month at such hours of the day and at such places as may hereafter be agreed upon. The next Meeting to be held at 5 College Doctors Commons London on the 7th of May next at 4 o clock p.m.

That the present Rules be reconsidered and further Rules made and the Offices filled up at the next or any subsequent Meeting of the Society, the meeting then adjourned.

Saml. Chas. Whitbread
John Lee
James Glaisher
J. B. Reade
Charles Lowndes
John Drew
Edward Joseph Lowe
Vincent Fasel

1850 Ap. 4

(rough)

At an adjourned meeting held at the Apt? of Hartwell House on this day, the Minutes of the forenoon and of the afternoon of the preceding day were read and Confd and signed by all the Members present

—

It was then moved by Dr Lee that the Treasurer be allowed, that he be allowed to furnish himself with books and stationery as he finds necessary

Passed Unanimously.

It was then moved that the Secretary be allowed the same thing:–

Passed Unanimously

—

Stamps

That Mr Clarke be [illegible] to the [illegible], to the [illegible]

—

It was then moved that the Secretary be desired to defray all expenses of Stamps and postage

—

That the Secretary be desired to take the necessary steps by writing to all persons he considers likely to become members.

—

It was then, by Dr Lee that, proposed, William Stowe Esq. of Buckingham, be admitted a member

Passed Unanimously

It was then proposed by Mr Glaisher that the Rev J. Slatter M.A. of Rose Hill Cottage near Oxford be admitted a member

—

It was then proposed by Dr Lee that Mrs Lee be a member: admitted Unanimously. –

—

It was then moved by Mr Drew that Mrs Glaisher be admitted a member

Passed Unanimously

It was then moved by Mr Drew that Mr Lowndes be admitted a member

Passed Unanimously

It was moved by Rev. J. B. Reade that Miss Gertrude Owers be an Honorary Member
Passed unanimously

The meeting then adjourned to the 7th of May

It was then moved by McGlashan that
William Johnston Esq. of Thorne [illegible] Occ[illegible]
be admitted a Member
Passed unanimously

1850 April 4

The meeting which was adjourned yesterday was resumed this day, at Hartwell House near Aylesbury

Samuel Charles Whitbread Esq, was in the Chair

The minutes of the Meeting held yesterday were read, confirmed, and signed by the Chairman and all the Members present

The following resolutions passed unanimously

On the motion of Dr Lee, that the Treasurer be allowed to furnish himself with books and Stationary as he finds necessary

On the Motion of Dr Lee, that the Secretary be allowed to furnish himself with books and Stationary as he finds necessary

On the Motion of the Chairman, that Mr Clark of Moorgate Street, near the Bank, London, be appointed the Stationer to the Society

That the Secretary be desired to take the necessary steps for the furtherance of the Objects of this Society, by writing to all persons whom he considers desirable to be Members of this Society

On the Motion of Dr Lee, that the Secretary be desired to defray all expences of Stamps, Carriage of Parcels, and small expences incidental to his office

On the Motion of Dr. Lee, That William Stowe Esq. of Buckingham be admitted a Member

On the Motion of Mr Glaisher, That the Rev. John Slatter of Rose Hill Cottage, near Oxford be admitted a Member

On the Motion of Dr. Lee, That Mrs. Lee be admitted a Member

On the Motion of Mr Drew That Mrs Glaisher be admitted a Member

On the Motion of Mr. Drew. That Mrs. Lowndes be admitted a Member

On the Motion of the Rev. J. B. Reade, That Miss Gertrude Dovers be an Honorary Member

On the Motion of Mr Glaisher, That William Johnson Esq. of Thame, Oxfordshire, be admitted a Member

It was then resolved that all the Officers of the Society have the power of receiving the names of Gentlemen for admission without ballot at the meeting of Officers on the 7th day of May next

The meeting then separated, having agreed to meet again at 5 College Doctors Commons, on the 7th day of May next

Saml. Chas. Whitbread
Chairman —

1850 May 7

At a Meeting held on the 7th day of May 1850 at 5 College Doctors Commons, London, at which were Present,

Mr W Whitbread
Dr Lee
Mr Glaisher
Rev. J. B. Reade
Rev. C Lowndes
Mr Rutter

The President was in the Chair

The Minutes of the last meeting were read and confirmed

At the request of the President the Secretary stated that he had written to all persons whom he thought it was desirable to have as original Members, and he read extracts from many letters.

The following list of persons were then submitted for enrolment

By the President

Lord Robert Grosvenor M. P.
Hastings Russell Esq, M. P
Thomas Herbert Barker M. D. Bedford
John Barlow McLaren,

By the Treasurer

Thomas Bell Esq, F. R. A. S
Hammett Bluen Hailey Esq
Captain Smyth R. N
Peter Legh Esq
Solomon Drach
Robert Wilkinson Esq
Rev. J. Hartshorne

Meeting of 1850 May 7 (Cont)

By the Secretary, Mr Glaisher

Captain Blackwood R.N. F.R.A.S

Rev. A. Weld F.R.A.S

G. V. Vernon Esq

David Slate Esq

George Leach Esq

Walter Ralph Milner Esq

Charles Chorrock Esq

James Fenwood Esq

John Bennett Esq. F.R.A.S

Thomas Shebbeare M.D

Elliott Watkins M.D F.R.S

John Dover Esq

J. F. Miller Esq F.R.A.S

Thomas Moffatt M.D F.R.A.S

Robert Symonds Esq

William Phillips Symonds Esq

Samuel Shollober

William Bond Paul Esq

C. Leeson Prince Esq

R. C. Carrington Esq

W. Brooke Esq F.R.A.S

William Dobie Esq

George Clayton Atkinson Esq

John Osborn Esq

S. C. Homersham Esq C.E

Thomas Wicksteed Esq C.E

Edward Filliter Esq C.E

Henry Barrow Esq

Frederick Symonds Esq

Charles Buland Esq

Richard Taylor Esq

By the Rev. J. B. Reade

Zachariah D. Hunt Esq

Olinthus James Green Esq

By Mr Lowe, as presented by the Treasurer

Henry Lawson Esq
Mrs. Lawson
Luke Howard Esq F.R.S
Prof. John Stevelly L.L.D
Rev. Prof. Temple Chevallier B.D. F.R.A.S
Lieut R.W.H. Hardy R.N. F.R.A.S
I. Fletcher Esq F.R.A.S
John Hippisley Esq F.R.A.S
Lieut John Mould R.N
J. W. Jeans Esq
A.S.H. Lowe Esq
A. Lowe Esq
Rev. C. a Lloyd M.A
W. Winstanley Esq
S. Watson Esq
W. Gale Esq M.D
J. Graham Esq
J. G. Tatem Esq
Joseph Sidebotham Esq
W. H. Leeson Esq
Gen. Sir Thomas Macdougal Brisbane Bart
Robert Russell Esq
John S. Russell Esq

By Mr Drew, as presented by the Secretary

The Lady Noel Byron
The Countess of Lovelace
C. Pardoe Esq
R. M. Coleman Esq
R. S. Newall Esq
W. A. Bloomfield Esq M.D
T. Bell Salter Esq M.D
Joseph Dobb Esq
H. F. Salter Esq F.S.A

After some conversation, the whole of these persons were ordered to be enrolled, and the Secretary was directed to write to every one announcing their enrolment

Meeting of 1850 Aug 7 (Cont.)

The following resolutions were passed

On the Motion of Dr Lee, seconded by Mr Lowndes, that Lord Robert Grosvenor M.P. be elected a Vice President,

On the Motion of the Rev J. B. Reade, seconded by Rev. C. Lowndes That Wentworth Beaumont Esq M.P. be elected a Vice President

On the Motion of Dr Lee, seconded by Rev J. B. Reade, that Sir Thomas Brisbane Bart, be elected a Vice President

On the Motion of Dr Lee seconded by the Rev J. B. Reade that Luke Howard Esq F.R.S, be elected a Vice President

On the Motion of Mr Glaisher, seconded by Rev. C. Lowndes, That Captain Blackwood R.N., F.R.A.S, be elected on the Council

On the Motion of Mr Glaisher seconded by Rev J. B. Reade, that George Leach Esq, be elected on the Council

On the Motion of Rev. C. Lowndes, seconded by Rev J. B. Reade, that Thomas Shapter M.D. be elected on the Council

On the Motion of Dr Lee seconded by the Rev J. B. Reade that Professor Chevallier, be elected on the Council and

On the Motion of Mr Glaisher, seconded by Rev J. B. Reade that Professor Stevelly be elected on the Council

It was then unanimously resolved to extend the privilege to the Officers of having power to admit members, free enrolment, till the meeting in June

~~It was then~~

The Treasurer was then desired to pay the Assistant Secretary, Mr John Sanders the sum of 5£

On the Motion of Mr Glaisher it was resolved that Messrs Taylor Printers, Red Lion court, should be the Printers for the Society

~~A~~

A presentation of the President at the last meeting

to print certain Tables for the reduction of ~~[illegible]~~ Observations was then taken into consideration, and it was resolved to reprint portions of the Tables for correction for diurnal ranges — (Mr Glaisher ~~expressing~~ ~~the~~ giving his permission to the Society to do so), and Mr Glaisher was requested to prepare such Tables for the Press and to have 500 Copies struck off —

A short consultation then took place upon printing the corrections for the reduction of Barometer Observations, the subject was referred for consideration, to the next or subsequent meetings.

The subject of the printing of a label, having a blank for the name of the individual to whom the paper was sent, with ~~[illegible]~~ the words printed on it, "From the British Meteorological Society" — was taken into consideration, and it was resolved to have 500 such labels printed. The ~~[illegible]~~ President undertaking the superintendence of this.

The Secretary then stated to the Council that it was his intention to give 50 Copies of all his papers to the Society for distribution among the members, and he submitted to the council, whether it would not be advisable to have so many copies struck off of every paper that one copy should be given to every ordinary member. After some consultation it was resolved to request the Secretary to supply himself with a sufficient number of copies to supply every ~~[illegible]~~ member of the Society with one, and that the additional expense would be defrayed by the Society

The subject of an address to the Public, explanatory of the views and objects of the founders of this Society was next taken into consideration, and it was resolved that a Consultative Committee consisting of Mr Whitbread, Dr Lee, Mr Glaisher, and Mr Rutter, be ~~committee~~ formed, and that Messrs Reade & Lowndes be added if convenient to them to attend the Committee; Mr Glaisher was requested in the first case to prepare the address, to submit to the Committee on the following Tuesday.

A letter from Captain Sir John Ross, was next taken into consideration, in which he offered to take any observations as ordered by the Society in his intended ~~upon~~ voyage to the Arctic Sea.

The Secretary was requested to reply to this letter as he thought fit.

The offer of Lady Noel Byron, of 5 £ was next taken into consideration, and it was resolved, that the Society would receive the gift, as any donation, but not in lieu of an annual subscription.

The Rules and Regulations of the Society were then briefly noticed, and the Treasurer was requested to ~~take the charge of the~~ prepare such for a future meeting.

The meeting then adjourned, agreeing to meet at 5 College Doctors Commons on the 1st Tuesday in future.

Saml. Chas. Whitbread
President

1850 June 4

At a Meeting of the Council held at Mr Clarks' Stationer at 13 Moorgate Street near the Bank, London, on Tuesday June 4, 1850

Present

The President
The Treasurer
The Secretary
The Rev. C. Lowndes
W. Rutter Esq
Gregory Seal Esq –

The President in the Chair

The Minutes of the last meeting were read and confirmed

At the request of the President the Secretary stated that on May 8, he wrote to all the Members enrolled on the 7th of May announcing their enrolment

The secretary then read a letter from C. G. Philips Commander R. N. expressing his thanks to the Council for admission as an honorary Member,

~~The secretary stated that he had not received any~~

The secretary then read ~~his~~ a copy of his letter to Sir J. Ross, and stated that he had not received any acknowledgment of its receipt from Sir John Ross, but as Commander Philips letter was enclosed in the same envelope, and directed to Sir John Ross, it was evident that he had received the invitation

The secretary then read several other letters which he had received –

The secretary stated that in obedience to the orders given him at last meeting of Council he had ~~sent~~ sent a copy of his remarks upon the weather in the quarter ending March 31. 1850

to every Member of the Society

The secretary in reply to a question from the President, stated that he had not been able to take any steps relative to the printing of the Naturalists' correction

The President submitted some labels for the approbation of the Council, and which were given to the secretary to decide upon

The Treasurer stated that he had been engaged upon the Rules & Regulations of the Society but that as yet he had not made much progress in them

The report of the Committee appointed at last meeting of the Council, to draw up an Address was read, and several copies of the address was distributed among the members present

The President proposed the following Gentlemen as Members

Edward Owen Tudor Esq
Antonio Brady Esq
Henry Pengelt Esq

The Secretary proposed the following Gentlemen as Members

Revd Thirlie Evans
Rev. George Fisher
C. V. Walker Esq
A. K. Barclay Esq
Lord Liverpool
Thomas E Blackwell
Isaac Brown Esq
J. W. Long Esq
W. Bell Esq
W. Newton Esq
W. H. Barlow Esq
Dr. R. D Thomson

The Treasurer, stated that Mr Shaw proposed

Rev. S. Clark M. A., as a member

The Secretary stated that Mr Lowe proposed

David Tennant Esq

Rev. T. Braithwaite

J. Barber Esq

J. L. Newman Esq

A. W. Dawes Esq as members

These gentlemen were all admitted, and the Secretary was ordered to enrol them

The Treasurer then stated that 41 Subscriptions had been paid to him,

It was resolved that all those Members who had not paid their subscriptions should be written to and the Secretary was desired to do so

The subject of the Barometer Tables was deferred

The meeting then adjourned till the 1st Monday in July

Sam.l Cha.s Whitbread

President

1850 July 2.

At a meeting of the Council held at Mr. Clarks' Stationer, at 13 Moorgate Street near the Bank, London, on Tuesday July 2, 1850.

Present

The President
The Treasurer
The Secretary
The Rev. J. B. Reade
The Rev. C. Lowndes
W. Button Esq
J. Drew Esq

The President in the Chair

The Minutes of the last meeting were read and confirmed

The Secretary stated that on June 5, he wrote to all the Gentlemen who were admitted members on June 4.

The Secretary read extracts from several letters, received by him since the meeting on June 4. A wish was expressed in several of these letters to have ~~[illegible]~~ ~~[illegible]~~ Instructions ~~[illegible]~~ for making observations ~~[illegible]~~ prepared and circulated by the Society

The following letter was read ~~A~~ from Joseph Henry the Secretary of the Smithsonian Institution at Washington, addressed to James Glaisher Esq, Secretary of the British Meteorological Society

"The Smithsonian Institution is attempting to establish
"a system of Meteorological Observations to be extended
"as far as possible over North America, and I now
"address you for the purpose of requesting that
"you will furnish us with a copy of the forms
"you have adopted in your system of observations,
"and favour us with any suggestions which may
"be the result of your experience

The portion of the income of the Institution which can be devoted to Meteorology, is too small to enable us to do more at present than make a beginning, and to gradually extend the system. We hope however to "collect considerable information of importance with "regard to the movement of the air, and to the extent "and direction of the storms of this country"

James Glaisher Esq F.R.S

I have the honor to be very respectfully Your Obt. Servt

Joseph Henry
Secy
Smithsn Institution

It was then moved by Dr Lee and seconded by Mr Drew that the Secretary be desired to send copies of the papers, which this Society may publish, &c to the Secretary of the Smithsonian Institution, and to other ~~persons~~ who may apply for them, who are resident in other Countries

This motion passed Unanimously.

The Secretary then reported, at the request of the President, upon the state of the Meteorological Tables which the Council had ordered to be Printed at their previous meetings, as follows—

That the M.S.S were in the hands of the Printer, and that he was in hopes the proofs would have been ready for the examination of the Council, but it was found not possible to complete them, Specimens of the Tables, and three pages of the letter press ~~were circulated~~ were submitted

After some consultation, it was moved by Mr Drew and seconded by Mr Lowndes, that the introductory remarks, the form of Tables, and discussion of Tables, be approved—

This motion passed unanimously

It was then moved by Mr Reade, and seconded by Mr Lowndes that one copy of this paper be sent to every member

The Secretary proposed the following Gentlemen as members

Charles Todd Esq,
John Russell Hind Esq
~~James~~ Joseph Browne Esq
Charles Wentworth Dilke Esq
Rev. P. T. Ouvry –
William Farr Esq
E. Ryley Esq
Dr ~~Thomas~~ William Heath Murray

Mr Drew proposed that

William James Blyth Esq be admitted, a member, and

the Rev. C. Turnor proposed

Frederick Thompson Esq, as a Member

These gentlemen were all elected, and the Secretary was desired to announce their election and enrolment

The council then took into their consideration the means they had to redeem all the pledges they had given in their Address.

The Secretary submitted to the Council a Form he had prepared, for daily Meteorological Observations &c

After this form had been examined by every member, and fully discussed,

It was moved by Mr Rutter and seconded by Dr Lee that this form be adopted as the Society's form at present, and that it be printed, and that one copy of the form be sent to every member, and that the number of the copies to be struck off be left to the discretion of the President & Secretary

Passed Unanimously

Mr Glaisher then stated that since the year 1846 Meteorological Observations had been collected by himself and the Registrar General at first from 9 or 10 stations only, but at present from Jersey, Guernsey, Helston, Falmouth, Truro, Torquay, Exeter, Uckfield, Southampton, Royal Obs^y Greenwich, Maidenstone Hill, Greenwich, St Johns Wood, Chiswick, Aylesbury, Stone, Hartwell, Hartwell Rectory, Leesdale, Oxford, Rose Hill near Oxford, Cardington, Norwich, Leicester, Waltham, Highfield House, Nottingham, Derby, Hawarden, Liverpool, Wakefield, Stonyhurst, York, Whitehaven, Durham, Newcastle, North Shields, Glasgow and Dunino, or nearly 40 in number, and that he was in correspondence with other gentlemen in other parts of the country with the view of increasing the number. He also stated that he wished the Society to be connected with this series, and the use of the form, which had just been adopted, would connect the Society with them — as it would be used simultaneously with those by himself & the Registrar General.

He also stated that the observations came to him — for examination, reduction, deduction of results & preparation for press, and that the Results were printed by the Registrar General in the Quarterly Reports of Births, Deaths and Marriages.

He also stated that he hoped that all the observations would ultimately come into the possession of the Society, and that the Society he trusted would be able to carry on the series when he himself might be unable to continue them.

A long discussion followed, and it was resolved on the Motion of the Treasurer, seconded by the Rev C. Lowndes, that all observations collected by the form just approved, be given to Mr Glaisher for combination with those collected by himself and the Registrar General, for publication in the Registrar General's Quarterly Reports, or otherwise, and be considered as his own property.

It was then moved by the President and seconded by the Rev J. B. Reade that the sum of 52£ a year, reckoning from Lady day last, be paid to Mr Glaisher to assist him in his several works, so that he may have some time to devote himself to the work of the Society.

This motion passed unanimously.

Mr Glaisher then said he thought the sum which had just been granted to him, would allow him time to devote to the Society, but he thought it would help the Society better or, if it were called a grant to the Secretary, or rather that the person he might employ, might be termed Assistant Secretary, & it was resolved that this might be left to Mr Glaisher himself.

It was resolved that Mr Glaisher's receipt, for this money in the Treasurer's voucher was enough.

Objects Nos 2. 3, 4, 5. 6, 7 & 8 were then considered, and all seemed best attained by the preceding arrangements.

The Treasurer then announced that he had received 47 Subscriptions since last meeting, making a Total of 88 £ received

The Treasurer then stated that the following were a list of Members who had not paid their Subscription

Bennet, Brenham, Barker, Barlow, Carrington, Dell, Fillitor, Lord Grosvenor, Green, Hamnett, Howard, Hipperley, Hartstone, Monmouth, Lawson, Mr. Lawson, Lloyd, Lawton, Lord Lansdowne, Percy, Peel, Russell, Stanley, Sutton, Swann, Taylor, Whitestead, in all 27

The Treasurer then stated that he had paid 5 £ to Mr John Sanders, according to order of the President and Council

The Treasurer then produced a Bill from Mr Clark Stationer, of £16 . 19 s . 10 d

In this Bill were included the charges of Stationery and Postage Stamps furnished to the Secretary, and of Books furnished to the Secretary & Treasurer.

The Secretary examined all the items of the Bill relating to those which he had received, and found them correct,

The Treasurer also examined the items of the Bill as he would on the arrival of the books,

It seemed that none of the Officers had received the books and the Secretary was desired to write to Mr Howard about them

The meeting then adjourned

Saml. Chas. Whitbread
President

relative to those he had received, and stated them to be correct.

The Bill was then signed by the President, by Mr Drew, and by Mr Rooker, and the Treasurer was ordered to pay it.

The Treasurer stated that he had been engaged upon the Rules & Regulations, but that his time had been so fully occupied that he had not yet printed them.

The Treasurer then presented to the Society a bound copy of the Transactions of the Meteorological Society of London, and some other presents were received.

Some discussion now took place upon the books & papers already received, and Mr Rutter was requested to arrange them, which he kindly undertook to do.

The Secretary then stated that some time since Mr Lowe had informed him that a parcel of Books &c had been presented to the Society by Luke Howard Esq, and that he had thanked Mr Howard for them and he requested the Secretary to thank him also, which the Secretary said he would on the arrival of the books.

It seemed that none of the Officers had known of the books and the Secretary was desired to write to Mr Howard about them.

The meeting then adjourned.

Saml. Chas. Whitbread
President

1850 August 7

A meeting of the Council was called for this day, and there were only

The President and

the Secretary

and, consequently, no business could be done excepting that which was considered to be unimportant

The President and Secretary then took into consideration the number of copies which should be struck off of the form for collecting Returns, according to the estimate of Messrs Taylor,

			£ s d
1000	Copies would be about		9. 15
1500	"		11. 6. 6
2000	"		12. 18. 6

For good paper and hot pressing.

It was resolved to have 2000 copies struck off and such order was signed by the President & Secretary, who were then present.

Next it was considered how many copies should be struck off of the form for corrections for diurnal range, and it was resolved, ~~that~~ to have 500 copies.

It was resolved that these copies should be sold at 6 pence each,

And that the cover should be coloured, with the title printed on it

~~Mr Taylor's estimate is £ 7/–~~

It was resolved that the form for Collecting Returns should be ruled with faint lines, which according to Mr Taylor's estimate would be 3. 0 per 500 copies

The ~~President~~ had to propose

Sir John Guest, and

W. Simms Esq

as Members of the Society

And the Secretary beg to propose

Dr. Reynolds
Charles Brooke Esq. F.R.S &c
John Drew Esq
Joseph Quick Esq.
J. O. N. Rutter Esq. F.R.AS
George Bennett Esq

as Members of the Society.

The Secretary stated that he had received 1£ from Mr Bennett, and that to all these gentlemen he had pledged himself that their admission would take place this day, if no objection should be made to them.

This circumstance in connexion with the fact that the year was advancing, and the doubt of collecting a meeting for six weeks, together with the personal knowledge possessed by the President & Secretary of the proposed gentlemen caused them to resolve to admit these gentlemen, ~~[illegible]~~ trusting that at the next meeting of Council their steps will be approved.

At 6 o'clock no other member of the Council was present, and no other business was entered into.

Sam^l Cha^s Whitbread
President

1850 September 17

A Meeting of the Council was held at 13 Moorgate street on this day

Present

The President
The Secretary
The Rev. J. B. Reade
The Rev. C. Lowndes
George Leach Esq

The Minutes of the Meeting held on July 2 were read and confirmed

The Minutes of the meeting of the President and Secretary on August 7, on which day no other member of the Council was present were read.

It was then moved by the Rev. J. B. Reade and seconded by George Leach Esq

That the Minutes of the Meeting held on August 7, and which was attended by the President and Secretary only, be legally approved and confirmed, and at the same time that the thanks of this meeting be given to those Gentlemen for undertaking the work of the meeting

This motion passed unanimously and the Minutes of the Meeting were confirmed

The Secretary then alluded to some correspondence he had had with John Mac Gregor Esq, relative to the admission of the Members of the London Meteorological Society into the British Meteorological Society, and the council approved of the Secretary's views, but as Mr. Mac Gregor viewed this correspondence as private between himself and Mr. Glaisher, the letters are

not entered on the Minutes

The Secretary then read the following letter which he had received from W. H. White Esq., late Secretary of the London Meteorological Society –

Meteorological Society
10 Sept. 1850

Dear Sir

Annexed I send you (by order of the Council of the Meteorological Society of London) a copy of a circular sent to each of its members together with a list of the Members at the date of its dissolution with their respective addresses, and shall feel obliged by your sending to each Member a copy of the Prospectus of the British Meteorological Society.

I shall also be glad of a few as I am frequently enquired of for particulars about it.

I am dear Sir
Your very truly
W. H. White Sec.y

James Glaisher Esq.
&c &c

Meteorological Society of London
10 Sept. 1850

Sir

At a meeting of the Council held at No. 23 Hatton Garden on the 14th August last, it was resolved that in conformity with the opinion expressed by the Members of this Society, that owing to the establishment of the British Meteorological Society under favourable and encouraging auspices, which Society has the same object as the Meteorological Society of London, and that the interests of the ~~Society of London~~ science of Meteorology would be best forwarded by dissolving the Meteorological Society of London, and handing its papers over to the British Meteorological Society and by the Members of the Meteorological Society of London joining the above named Society, it was therefore resolved, that the Meteorological Society of London be forthwith dissolved and the Members be recommended to join the British Meteorological Society, and that an intimation to this effect be sent to each of its Members with an account of the Receipts and Expenditure during the past year, ending August 14, 1850

(Signed) W. H. White Sec.y
4 Norfolk Place New Road
Camberwell

James Glaisher Esq.,

The subject of this letter was considered and it was resolved that application for admission to the B. Met. Society must be made by the Members of the late Meteorological Society, and that each must be proposed by a member of the Society as usual.

The Secretary then proposed

J. K. Sewell Esq, of Carrington, near Nottingham

John Wilson Esq, &c. F.R.S.E, F.G.S, F.C.S &c
Principal of the Royal Agricultural College of Cirencester, and

John Astley Fryer Esq

as Members.

This motion was seconded by G. Leach Esq and passed unanimously. The Secretary being ordered to announce the election and enrolment of these gentlemen as Members.

A discussion then took place upon the propriety of giving explanations of Howard's nomenclature of clouds, the Secretary being requested to draw up an explanation, but, as the Secretary stated that some time since Luke Howard had distributed papers upon the Modification of clouds, and suggested that application be made to him for some copies, the Secretary was requested to write to him respecting them.

The Secretary then stated that he had distributed many copies of the addresses of the Society, with other papers in a journey he had just performed in the Ireland and the North of England, he also said that he had not written to Luke Howard about the present, Mr Lowe had informed him had been made to the

Society as it had been his intention to have called upon him, but was prevented doing so

No report was given in from the Treasurer relative to the Rules & orders &c

No report was given in from the Auditors relative to the books &c

The Secretary then read a copy of his letter sent to Hugh Gordon Esq. of Dublin — it was as follows

13 Dartmouth Terrace
Blackheath
1850 Apr 16

My dear Sir

The Council of the British Meteorological Society have voted a sum of 52£ a year to me, for the purpose of payment to an assistant to compute &c for the Society, or in other words to be an assistant to me in my several works. Knowing how well qualified you are for the performance of these works and knowing also your desire to be in England, I have resolved to offer this to you, at the same time I know that the sum is very far indeed from being remunerative to you, it is possible however that as the Society advances in numbers, and in prosperity that this sum would be increased, but of this I do not pledge myself.

Perhaps upon reflexion when this is connexion with your other connexions in England you would be kind enough to favour me with an answer

I am dear Sir
Yours very truly
James Glaisher
Secy
B. Met. Socy

To Hugh Gordon Esq
&c

The meeting then adjourned till Tuesday Oct. 8 —

Saml. Chas. Whitbread
President

1850 October 8

The Council met this day at 6 o clock, in accordance with the resolution of September 17

Present

S. C. Whitbread Esq. President
Mr Glaisher Secretary
Messrs. Reade, Lowe, Leach, & Rutter

The minutes of the meeting on the 17th of September were read, confirmed and signed by the Chairman

The secretary reported that he had written to the new members admitted Sep. 17

The secretary read a copy of a letter he had written to Mr Luke Howard, according to the order of the Council, and he read Mr Luke Howards reply. (see letters)

The Secretary read a letter he had received from Hugh Gordon Esq. of which the following is a copy

35 Montpelier Hill
Dublin
1850 Sep. 23

My dear Sir

I have taken some time to consider your kind letter of the 16th instant, offering me the situation of Assistant Secretary to the British Meteorological Society

After mature reflexion I have resolved to accept it on the conditions you have specified. I have been influenced in this decision, principally by the consideration that the valuable objects of the Society have been for many years, in conjunction with my former avocations, my constant study and that they are, in all respects congenial with my habits and taste

Respecting the amount of Salary you have offered, I have only to observe that I trust as the Society advances in usefulness and in prosperity, I may be found deserving of such increased remuneration as may be commensurate with the time and labour which it will be my pride to bestow in the promotion of its interests

Allow me my dear Sir, to return my

sincere thanks for the anxiety you have shewn, on this occasion, to serve me and to assure you of my earnest desire to merit the favorable opinion you have expressed of my qualifications for the office in question.

Until receipt of your answer to this letter I shall be prepared to leave Dublin, at whatever time my services will be required

I remain dear Sir

with sincere respect

James Glaisher Esq.
Ste &c

Your faithful & obliged friend

Hugh Breen

and the Secretary reported that Mr Breen had joined.

The President proposed
Captain James Smythe R.A.
and
The Secretary proposed
John Morgan Esq. of Jesus College, Cambridge
as Members,

Both these gentlemen were admitted, and the Secretary was ordered to announce their admission and enrolment to them

The Council then took into their consideration the desirableness of having a sufficient number of copies of a paper by the Secretary upon the Thermometric Observations taken at the Apartments of the Royal Society till 1843, combined with those taken at the Royal Observatory, Greenwich, since 1840, and which paper is now being printed by the Royal Society. After some discussion it was moved by Mr Lead, and seconded by Rev. C. Lowndes that 300 copies be printed of the paper, at the expense of this Society, and this motion passed unanimously.

No report was given in by the Treasurer, and none was received from Mr Rutter relative to the Books &c

The meeting then adjourned to Tuesday the 12th day of November, next.

Saml. Chas. Whitbread
President

1850 November 12

The council met this day at 13 Moorgate street near the Bank London, in accordance with the resolution of October 8

Present

J. C. Whittaker Esq. President
Dr. Lee Treasurer
J. Spratt Esq Secretary
Rev. J. B. Reade
Rev. C. Lowndes
George Leach Esq
John Rutter Esq

The minutes of the Meeting on October 8 were read and confirmed

The Treasurer was desired by the President and the other gentlemen present to pay to Mr Slaughter the sum of 26£ pursuant to the resolution of July 2, for the services of an Assistant Secretary to September 30

A bill from Clark, the stationer of £8. 10. 6 of which 6£ were for postage stamps, and £2. 10. 6 for stationery, from July 2 to November 12 was ordered to be paid

The Secretary stated that he had announced the election and enrolment of Captain James Smyth R. A, and of John Morgan Esq, as members

The Secretary then proposed the following gentlemen as members
Thomas Barber Wright Esq. of Birmingham
George Holland Esq, of North Terrace Camberwell
G. W. Bingley Esq, F. L. S F. G. S. A. C. E,
and the Treasurer proposed
The Marquis of Northampton, and
George Bishop Esq, South Villa, Regents Park,
as members,

and the Council admit these gentlemen
to be enrolled as Members.

The Secretary then stated that he had applied
for estimates of the expense of printing 300
copies of his Paper, in pursuance of the resolution
at the last meeting, and Mr Taylor had stated
that "the charge for printing 300 copies of your
Paper in Phil. Trans. 5½ sheets, with Paper
[illegible], stitched in cover, and [illegible] would be
£ –. That he had then made enquiries
as to the expense of 150 copies, and
it was £ – (see letter)

After considerable discussion it was
resolved that 300 copies be struck
off, and that one copy be given to
every gentleman then a Member
of the Society, and the remaining copies
to be kept in store, to be given to
such new Members who might write
for them, or who seemed to be so
interested as to put them to good
use

The Secretary then stated that 150 Copies
of Luke Howard's Nomenclature of the
Clouds had been presented to the Society
by the Author, for their distribution

It was then moved by George Leach Esq and
seconded by Dr Lee, that the thanks of the
Council be presented to Mr Luke Howard and that
the Secretary be directed to write a letter to
him, expressing of the sense of this meeting
for relation to his present.

The Treasurer then handed in the Rules and
Regulations by which the Society should be
governed, and these were at once, some
discussion took place on several parts, but
the principal alteration was from the number
of person 5 as proposed by Dr Lee, to form a
Quorum in Council, was reduced to 3,

It was resolved that these rules be as
drawn up by Dr Lee, be adopted for the
present,

That 25 Copies only be first struck off,
and that before final adoption, that one
copy be sent to every member of Council
and that the ~~said~~ final adoption should not
be determined upon till after next meeting
of Council on December 10

The Meeting then adjourned to December 10

John Lee
Chairman

1850 December 10

The Council met this day at 6 o'clock at 13 Moorgate Street near the Bank London

Present
Dr Lee, in the Chair
J. Glaisher Esq. Secretary
Rev J. B. Reade
R. C. [illegible]
E. [illegible] Esq
W. [illegible] Esq

The minutes of the last meeting were read and confirmed

The Secretary stated that he had written to the several gentlemen admitted at last meeting of Council, viz. J. B. Wright Esq; George Dollond Esq; E. W. Brayley Esq, and the Marquis of Northampton

The Secretary then read the copy of a letter he had written in obedience to the orders of the Council at their last meeting to Luke Howard relative to his valuable present of 150 copies of his nomenclature of clouds

Copy

British Meteorological Society
1850 Nov. 10

My dear Sir
Having brought under the notice of the Council at their meeting on November 12 Samuel Charles Whitbread Esq. in the Chair that you had presented 150 copies of your nomenclature of the clouds to the Society for their distribution, I have the pleasure to acquaint you that a vote of thanks was passed as well as a resolution expressive of the sense entertained by the Council of your exertions for the advancement of the Society and its objects

I remain dear Sir

Yours very obediently
James Glaisher
Secretary

Luke Howard Esq
&c &c &c

The Secretary proposed the following Gentlemen as Members,

Rev. James Hill. M.A. Head Master of the Upper School, of the Royal Naval Schools, Greenwich

Captain James R.E.; and

Thomas Martin Esq. of Reigate; and

Alderman Hopkins Esq. of Manchester

The Revd. George Fisher seconded the proposal of Rev. James Hill,

Capt. James was seconded by Rev. C. Lowndes

Thomas Martin was seconded by R. C. Lowndes,

and Alderman Hopkins of Manchester, was seconded by the Rev. J. B. Reade,

These gentlemen were also elected, and the Secretary was ordered to announce their election, and enrolment on the List of Members, of the Society

A letter was read from W. Brooke Esq, of Norwich suggesting to the Council the necessity of uniformity of registration by the use of the British Meteorological Society's forms, as also the Observations, &c (see letter)

A letter was read from J. W. Gutch Esq relative to the Books and Papers now in his hands, belonging to the London Meteorological Society, and offering to deliver them up to the British Meteorological Society upon receiving authority from Lord Robert Grosvenor as President of the former Society to do so, and receiving from the British Meteorological Society, the amount of Postage, carriage of Parcels &c which he has paid

The proposition in this letter was considered and it was resolved that the Secretary should write and ascertain the amount of Mr Gutch's account, and thanking him for his letter,

The Treasurer reported that he had paid 55£ on account of the Society, and that there was 71£ in the Bankers hands, but that Taylor's bill was not paid

It was then resolved that Taylor's bill for Printing the address; the forms for Collecting observations; the 8£ as per agreement for 300 copies of Mr Glaisher's papers, published in the 2nd Part of the Philosophical Transactions for 1850 and for printing the Rules and Institutes of the Society

The Council then formed themselves into a Committee, and took into their consideration the rules of the Society as printed, section by section throughout; and fully discussed many of them, making such alterations as seemed to be desirable, and which alterations passed unanimously in every case

It then appeared to the Council that it was desirable that the names of other members of the Society besides those on the Council should be added, and the following gentlemen were appointed a Committee

Dr. Lee
Mr Leach
Capt. Smyth R.N.
Mr Rutter

Mr Reade
Mr Lowndes

and the Secretary was desired to look over the List of Members and to name two to be added to the committee

Saml. Chas. Whitbread
President

1851 January 14

The Council met this day at 4 o'clock at 13 Moorgate Street, near the Bank London

Present

S. C. Whitbread Esq. President
J. Glaisher Esq. Secretary
Rev. J. B. Reade
J. Rutter Esq
J. Drew Esq

The minutes of the Meeting on Dec. 10, 1850 were read and confirmed.

The Secretary stated that he had written to
Captain James R.E.
Thomas Martin Esq, and
Alderman Hopkins, of Manchester, announcing to them their election and enrolment as members of this Society

The Secretary announced that 22 Maps or Charts of the currents of the ocean, and direction of the wind in the Atlantic by Lieut. Maury of the United States Navy, had been received, addressed to this Society, but unaccompanied by any letter or note, supposed to have been sent by Lieut. Maury.

That a pamphlet, entitled "an account of some Thunder Storms and Extraordinary Electrical Phenomena, that occurred in the neighbourhood of Manchester, on Tuesday the 6th of July 1850 by Peter Clare Esq. F.R.A.S., accompanied by a letter had been addressed to the Society

That a letter had been recd. from John Graham Esq, M.B.M.S. containing an account of Meteors, and Auroras observed by him from July to Dec. 1850,

That Professor Quetelet of Brussels had

sent a paper to the Society entitled,

That Mr Drach M.R.B., M.S. had sent a paper to the Society, entitled

Deductions from Mr Glaisher's Meteorological Corrections By S. M. Drach, F. R. A. S.

This paper stated that in the Phil. Mag of June and July 1842, he had given the following formula for the calculation of Mean Temperature from a few observations taken daily,

For any time t from the epoch be put equal to

$H + A \sin t + a \cos t + B \sin 2t + b \sin 2t + C \sin 3t$
$+ c \cos 3t + E \sin 4t + \cos 4t$, that the average of 4 readings respectively a quarter of a day apart, would give the mean

$H + E \sin 4t + e \cos 4t$ a nearly constant quantity if E and e be [illegible]. The second paper illustrates this by Sir D. Brewster's Leith Observations (Ed Phil. Trans. Vol) and the annexed tables frequent results corroborate and he proceeds to show this

After the receipt of this paper Mr Glaisher received a letter from Mr Drach stating that if the paper was unsuited to this Society he would get it printed in a periodical — and the Secretary was desired to return the paper to Mr Drach, recommending him to get it published

The Secretary stated he had written to Mr Gutch relative to the expence of Parcels &c — and that he had received a letter in reply from Mr Gutch who states that he will supply such on his return to London, in this letter Mr Gutch wishes the Society every success, and recommends the keeping out of the Society all Charlatans, and Zadkiels

The Secretary brought under the notice of the Council the first number of a Weekly Meteorological Report in the Institute, Medical Journal, supplied for the most part by Members of this Society and Edited by [illegible] — This paper seemed to the Council to promise well for the future advancement of the Science and some conversation took place as to obtaining a copy weekly for every Member and the Secretary was desired to ascertain the expense of such weekly —

The Secretary moved that

The Rev. B. M. Power of Norwich
T. Dyson Esq, Gainsborough
and
Joseph White, General Hospital Nottingham

be admitted Members, this motion was seconded by the Rev. J. B. Reade, and these Gentlemen were elected

An order whereon the Treasurer was signed by the President, and he drew to pay

13£ for the services of the Assistant Secretary to end of 1850

To pay 1.9£ to Mr Glaisher for Stationery expence of Parcels &c to end of 1850

To pay
5£ to Mr Clark for the use of the —

Apartments in Moorgate Street, for fire, candles, &c. to Dec 1850

The matter of the Rules and Regulations were then considered,

A letter was read from Dr Lee to Mr Whitbread stating that in the forming of the rules he had received very much assistance from Mr Rutter and from Mr Jerwood of Exeter

Mr Glaisher stated that in obedience to the orders of the Council he had mentioned Mr Jeans of Grantham as one of the two gentlemen he was to nominate

It was moved by Mr Dean and seconded by Mr Reade, that the following gentlemen now be the Committee,

Dr Lee
Mr Leach
Capt. Smyth
Mr Rutter
Mr Reade
Mr Lowndes
Mr Jeans

and on this motion being put it was declared by the President to be carried –

John Lee
Chairman

1851 February 11

The council met this day at 4 o clock at 13 Moorgate Street near the Bank, London

Present

S. C. Whitbread Esq. President
J. Lee Esq LLD. Treasurer
J. Glaisher Esq, Secretary
~~[illegible]~~
Rev. Charles Lowndes
George Leach Esq
John Rutter Esq
Edward Joseph Lowe Esq

Dr Lee was in the chair

The minutes of the last meeting on January 14 were read and confirmed

The secretary stated that he had written to the gentlemen who were elected members at the last meeting, announcing to them their enrolment on the list of Members of this Society

The secretary read a letter from W. Fosel Esq resigning the membership of the Society, and the Treasurer stated that Miss Dover, was desirous of withdrawing. Both these resignations were accepted –

The secretary read a letter he had received from Mr Gutch, stating that he had incurred the expence of 50s for parcels, postage &c, and that on receipt of this sum all the books &c should be handed over to the Society on Mr Gutch receiving the authority of Lord Grosvenor, as President to do so,

It was moved by Mr Whitbread ~~[illegible]~~ and seconded by Mr Leach, that the sum of 50s a little more or less be paid ~~for~~ to Mr Gutch on the receipt of the books &c

The Treasurer stated that to the end of the year he had expended £6, and that at present a sum exceeding 50£ was in the hands of the Banker

The Treasurer stated that the Instructions were ready and it was resolved that 500 copies of them ~~[illegible]~~ be printed.

It was then resolved that 250 Copies of a form of notice to the members requesting the payment of the subscription be printed –

It was also resolved that a list of the Members complete to 1850 December be printed –

A letter was read by the Secretary from Dr Barham at Truro relative to Medical Topography, in which he enquired whether the Meteorological Society was willing to incur the requisite pecuniary sacrifice to assist in a general series of Researches upon Medico-Meteorological Observations. It seemed to the Council, that as these members and the Officers of the Society were exerting themselves to have a full report upon the same subjects and which were now published in the Institute Medical Journal

It was resolved that at present the Society could not increase its expenditure for these investigations

The Secretary proposed as Members

James Macaulay Esq, 28 Chancery Lane, Barrister

J. C. Bloxam Esq, Surgeon Newport Isle of Wight

and

Erskine Duncan Esq Berwick Tetton

The Treasurer proposed,

Hale Wortham Esq
Solicitor
Royston Herts,

George Leach Esq, proposed
Bemerside
John ~~Bermingade~~ Haig, Surgeon
5 Lower Grosvenor Place
Eaton Sq

E. J. Lowe Esq, proposed
Nathaniel Beardmore C. E
13 Great College Street, Westminster

and

Dr. Henry Johnson, Surgeon, Shrewsbury

and these gentlemen were severally seconded and elected members of the Society. The Council adjourned to the 2nd Tuesday in next

Saml. Chas. Whitbread
President –

1851 March 11

The Council met this day at 4, o clock, at 13 Moorgate Street near the Bank, London

Present

S. C. Whitbread Esq, President
J. Lee, Esq, F.S.A. Treasurer
J. Glaisher Esq, Secretary
Rev. Charles Lowndes
Rev. J. B. Reade
G. Leach Esq
W. Rutter Esq

The President in the Chair

The minutes of the last meeting were read and confirmed

The secretary stated that he had announced the enrolment of the gentlemen who were admitted members at the last meeting; that he had written to Mr Gutch, informing of the resolution of council at their last meeting, but that he had not again heard from him

Copies of the Institutes and Cards of Meeting were laid on the Table, and the Secretary stated that a copy of both were in the hands of almost every member of the Society

A proof of the list of Members to Dec 31. 1850 was submitted for inspection

A letter was read, addressed to Prof. C. P. Smyth Astronomer Royal of Scotland relative to the Observatory of George town Demerara, from John Sandeman of Greenock, stating that the Observatory was under the direction of his Son, and that in consequence of the depressed state of the colony, the Observations would be stopped for the want of Funds, and urging the address to the British Meteorological Society

Another letter ~~fr~~ was read from the same gentleman addressed to the Treasurer, relative to the same subject. After some discussion it was

resolved that this Society not being in a situation to give any pecuniary assistance, could not take any active steps for the Observatory at present

It was also resolved that a copy of the paper shewing the mean Temperature for 79 years, the address of the Society, and some other papers, be sent to Mr John Sandeman at Greenwich to be forwarded to his son at Demerara

The Secretary stated that he had had some correspondence with Mr Boardmore relative to his subscription, and who wished to compound for his annual subscription

The Treasurer stated that he had received a cheque for 12 £ from Mr Boardmore, accompanied with a letter from Mr Boardmore, and a letter addressed to Mr Boardmore from the Secretary, in this letter, the Secretary had stated that at the time of Mr Boardmore's election his subscription of 1 £ was due, that since that time the Rules of the Society had been published by which 12 £ was stated to be the compounding fee, independent of the admission fee, and that in this respect he stood exactly as we stood – but that he thought it likely that the Treasurer would compound at present for 12 £ – The Treasurer therefore submitted the case to the Council and it was resolved that as no admission fee had yet been asked, that the 12 £ be taken in lieu of all subscription

It was then moved by Mr Reade and seconded by Dr Lee that this 12 £ and all compounded subscriptions be funded, and this motion passed unanimously –

It was then resolved that this money be in the names of The President, Samuel Charles Whitbread Esq, John Lee Esq, James Glaisher Esq, and W. Rutter Esq,

It was then moved by Mr Glaisher that John Matthew Esq of [illegible] Terrace, Greenwich, be admitted a member, and this motion was seconded by Rev. J. B. Reade – and he was unanimously elected,

It was then moved by Dr. Lee, and seconded by ~~Rev. J. B. Reade~~ Mr. Glaisher, that

Charles Greaves Esq, C.E. of

19 ~~Poulton~~ Pelham place Brompton

be admitted a Member —

and on the Motion of Dr. Lee, seconded by Rev. J. B. Reade that

John Henry Belville Esq

of

9 Hyde Vale Cottages, Greenwich —

be admitted a Member, and both these Gentlemen were admitted.

The subject of the ordinary meeting which is to take place, this day Fortnight was then taken into consideration, and some arrangements were made, relative thereto, and the council adjourned to Tuesday March 25, at 6, o clock.

Saml. Chas. Whitbread

President —

1851 March 25

The Council met this day at 6 o clock at 13 Moorgate street near the Bank, London

Present

S. C. Whitbread Esq. President
J. Glaisher Esq. Secretary
Rev. J. B. Reade
Rev. C. Lowndes
G. Leach Esq
W. Rutter Esq.
S. C. Homersham

The President in the Chair

The Minutes of the last meeting were read and confirmed

The Secretary reported that he had written to Charles Greaves Esq, C.E. and John Henry Belville Esq, announcing to those Gentlemen their admission to this Society and he stated that the letter to Charles Greaves Esq. with the copy of the Institutes and Cards of the Society had been returned by Post stating that Mr Greaves could not be found at 13 Poulton place Brompton.

The Secretary proposed Lieut. Edward Francis Tierny Ferguson of the Indian Navy and [illegible], F.R.A.S. as a Member of this Society and on this motion being seconded by Rev. J. B. Reade, Mr Ferguson was elected a Member of the Society

Some conversation then took place relative to the ordinary Meeting of this Society the [illegible] at which time several Members were present and the Council adjourned to April 22.

Saml. Chas. Whitbread
President.

See 4 pages forward -

1851 April 22

The council met at 4 o clock at 13 Moorgate street, near the Bank

Present

J. C. Whitbread Esq
J. Glaisher Esq
Rev. J. B. Reade
Rev. C. Lowndes
W. Rutter Esq
George Leach Esq

The Minutes of the last Meeting were read and confirmed

The secretary proposed on the recommendation of the Rev. James Hole,

the Rev. Henry Beattie M.A. of the National Society training Institution 11 Manchester Buildings, Westminster as a member of this Society, this motion was seconded by the Rev. J. B Reade, and the President declared it carried

The secretary proposed on the ~~motion~~ recommendation of the Rev. James Hole

John Ramsay Campbell Esq M.A second master of the Upper School at Greenwich, as a member, and this motion was seconded by the Rev. C. Lowndes, and passed unanimously. The secretary stated that he was personally known to both these gentlemen

The Secretary then proposed on the recommendation of E. J. Lowe Esq,

Lacon William Lambe Esq

of Henwood, Eilwyn, Leominster whom Mr Lowe described as a gentleman who would he believed be a valuable member,

This motion was seconded by George Leach Esq and passed unanimously

A letter was read from Mr Glaisher stating the Lord Robert Grosvenor had given him authority to send the papers &c in his possession of the Meteorological Society of London, to the British Meteorological Society and making enquiries as to where such should be sent. He stated that there were two large cases. It was resolved to desire him to send them to Dr Lee, and the Secretary was ordered to communicate with Mr Glaisher at once

A letter was read from John Wilson Esq addressed to the Secretary, stating that the Chemical Society is about to leave the rooms it at present occupies and take larger ones, in Cavendish Sq. and stating that the Council intend to allow other legitimate societies to use the rooms on payment of a proportion of the rental, and wishing

to know whether an arrangement to join the Chemical Society might not be arranged beneficial to both societies

~~It is~~ It was resolved that the Secretary make enquiries as to expense &c and to report at a future meeting of the Council the results of his enquiries

A letter was ~~read~~ from J. W. Brayley of the London Institution addressed to the Secretary, stating that two guard books containing papers of the former Meteorological Society had come into the possession of Luke Howard Esq and he wished to know the expediency of the Society accepting them, the secretary was desired to say that the Society would thankfully receive them. Mr Brayley in his letter spoke also about the meetings of the Society in May and of the proper mode of proceeding

The secretary announced the presentation from J. C. Fryer Esq of his Meteorological Observations for the months of Jan. Feb. and March 1851

Also, Meteorological results derived from 2 Years comparative Observations, at Guernsey by Dr Hoskins

Also that the Quarterly Meteorological Report from upwards of 60 places for the past quarter, had been

furnished to the Registrar General and was already in the Printer's hands. The reports themselves had been furnished for the most part by our Members, and had been examined, reduced, and prepared for press by the efficient assistance of the Assistant Computer Mr Gordon

The President announced that he had received a paper from J. M. Brock Esq, of B.M.S. Entitled

Fournerization of Mr Glaisher: present Meteorological correction and application to the dry Thermometer –

He also announced that he had received a printed letter from Lieut Maury of the U.S. Navy entitled,

Appendix to the Washington Observations for 1846 on the probable relation between Magnetism and the Circulation of the Atmosphere

An order, for £13 upon the Treasurer for the services of Mr Hugh Gordon as Assistant Computer was signed by S. C. Whitbread President

Charles Lowndes
R. B. Reade
J. Leach
W. Rutter

Mr Rutter laid on the Table 200 Copies of the Lists of Members, and the Secretary was ordered to send one copy to every Member,

1851 March 25

The first ordinary Meeting of this society was held on this day at 7 o clock, at 13 Moorgate Street, near the bank London

Present

Samuel Charles Whitbread Esq.

Rev. J. B. Reade

Rev. C. Lowndes

Rev. J. Hale

Mr. Leach

Rutter

Parigal

Frick

Beardmore

Wonnerstam

Macaulay

Wilson

Brayley

Hale

Dymond

Gordon

Glaisher, who introduced Mr Campbell

Fergusson

Mr Whitbread commenced by referring to the efforts of himself Dr Lee Mr Glaisher and a few other gentlemen to obtain the institution of a Society for the advancement of Meteorological Science, he then dwelt upon the necessity that existed for an institution of this kind, and assured the members that no exertion on his part should be spared to promote the interests of the Society, he next desired the secretary to read the communications which had been made to the Society, after which the Secretary said

Perhaps before proceeding to the ordinary business of the evening it may not be out of place, to make a few remarks upon the present state of the Society, and the labours of the Officers in attempting to lay the foundations of the Society on a firm basis

Already some of the results of their labours are in the hands of all our Members, I may here allude to the Address, the forms for collecting observations, tables for their reduction whereby it is to be hoped that uniformity will be obtained both in the observations and in their reduction; so much of the time of the Officers has ~~[illegible]~~ been thus occupied and notwithstanding the difficulties and delays inherent in the first working out of a Society of this kind, it must be acknowledged that the efforts of the Founders have been successful, and it must be gratifying to all our members that our numbers now exceed 160

It appears to me the true purpose of a meteorological Society is the collection of facts, ~~[illegible]~~ of undoubted accuracy ~~[illegible]~~, of facts being recorded ~~[illegible]~~ without reference to theory, ~~[illegible]~~

~~[illegible] in operation~~

forming the instructions &c, and at all times the objects of the Society ~~as~~ stated in the Address, have been constantly kept in view, in determining how their accomplishment could be best obtained

[illegible]

lying on the Table, it contains each week the Observations of the preceding week fully reduced and discussed. No such reports have ever before been formed. Together they ~~[illegible]~~ cannot fail to advance Meteorology & Medical Meteorology &c to a great degree

[illegible]

after which the Chairman returned [illegible]

and the Meeting separated —

J. C. Whitbread
President

As isolated facts are usually the effects of causes in operation at distant places, a great number of observers are required, working simultaneously upon one plan and under one guidance by which means only we may hope to ~~[illegible]~~ increase our meteorological knowledge

place, and under one guidance, this influence can be exercised only by a Society organised for that purpose, Hence I conceive the plain duty of the Society and its members is to collect these facts, and to plant observers where such should be wanting, and as far as possible to exercise that care which will ensure accuracy, and then to compare and combine the facts, ~~[illegible]~~, and to trace effects to their causes as far as can be

The science of Meteorology differs essentially from other sciences in this respect, for, how patiently soever, an observer may note and arrange the facts of his locality, it is only by their combination with others, in ~~other~~ different localities, that ~~other than~~ more than local conclusions can be deduced, Hence in Meteorological enquiries the most patient observers have failed to produce results commensurate with the labours that ~~have~~ have been bestowed on them

[illegible] some copies of which are now lying on the Table, it contains each week the observations of the preceding week fully reduced and discussed. No such reports have ever before been formed. and they ~~[illegible]~~ cannot fail to advance Meteorology & Medical Meteorology to a great degree

[illegible] the Chairman returned thanks after which and the Meeting separated —

J. C. Whitbread
President

It is fortunate that the means of promoting the objects of this Society are within the reach of every one, who is content patiently to observe that which lies before him, and often a simple recorded fact will give confirmation to the observation of another observer.

I cannot however too strongly express myself upon the observations requiring the aid of Instruments, that they should be made by means of instruments of known character, simple and accurate in their construction. Ultimately it will be by our published works we shall be judged, no matter how interesting our Meetings may be, no matter how far the advance of Meteorology may be aided by individual and collective efforts it is I repeat by our published works we shall stand or fall and these works, will I expect, be the results of the labours of our Members, based upon Instrumental observations, and the Officers have been ever earnest in urging the use of simple, accurate and tried instruments, feeling that the future advancement of this science, beyond all question, depends upon the goodness of the instruments used. No amount of labour, no method of reduction will deduce good results from observations made with bad instruments.

The pecuniary resources of this Society are small, and the Officers are and have been anxious to keep the expenditure well within the receipts, and it is attributable to this anxiety that Monthly reports have not been published ~~but owing to the~~ ... collected by myself, from our Members to the number of 23 ...

The necessity for which has been obviated for the present by the publication weekly by the Printer of the Institute weekly medical paper of a number of observations from the beginning of the year

I would wish to call the attention of the Members to this paper, some copies of which are now lying on the Table, it contains each week the fully reduced and discussed Observations of the preceding week. No such reports have ever before been formed. Together they cannot fail to advance Meteorology & Medical Meteorology, to a great degree.

... after which the Chairman returned thanks and the Meeting separated —

J. C. Whitbread
President

A letter was read by the Secretary, on the ~~late~~ very remarkable fall of rain which fell over the South of England, on March 15, 1851. This fall was unprecedentedly large for ~~any~~ the season of the year. In the neighbourhood of London it commenced at about 1h a.m., and by 9h a.m. water to the depth of one inch had fallen at Lewisham Greenwich, and of nearly an inch in London, and by 4h p.m. the total depth was 1.725 inch, a quantity unusual at any time but particularly in March. The fall of rain at Jersey on that day was 0in.4; [illegible] 0.2 at Guernsey was 0.9 inch; at Helston and Falmouth no rain fell; at Gosport 0.9; at Southampton 1.8 inch; at Midhurst 1.0; at Uckfield 1.2 inch; at Greenwich 1.5 inch; at Lewisham 1.7 inch; at Fleet St. London 1.2 inch; at Chiswell Street London 1.3 inch; at St John's Wood 1.0 inch; at Oxford 0.3 inch; at Linslade 0.5 inch; at Hartwell and Stone 0.5 inch; at Arnold 0.1 inch, and north of this parallel, no rain fell at most places, and the day was fine and sunny as it was in Ireland.

Another letter was read by the Secretary on the variation of the readings of the barometer this month. ~~On the~~ On March 1 the reading at the level of the sea was 30in.30; it decreased to 30.21 during the day; increased to 30.45 by the second; decreased to 29.71 by the evening of the 5th; increased to 29.94 by 5h p.m. on the 9th; decreased to 29.64 by 9h a.m. on the

[illegible]

come in force

This Motion was seconded by Mr Pargeter, and passed unanimously –

It was then moved by Lieut Farquhar and seconded by Mr Brayley, that the thanks of this Meeting be given to our Chairman after which the Chairman returned thanks and the Meeting separated –

J. C. Whitbread
President

10th; increased to 30.03 by 9h a.m. on the 11th, and the change of reading on this day was much; it then turned to decrease and was 29.70 by 9h p.m. on the 12th; increased to 29.85 on the 14th; decreased to 29.74 by noon on the 15th; increased to 29.91 on the 16th; decreased to 29.66 by 9h p.m. on the 17th; increased to 29.86 on the 18th, and on the 19th, the subsequent great decrease began; at 9h p.m. on this day it was 29.46 and it remained almost stationary at this reading till midnight on the 20th; the fall then proceeded, and on Saturday at 3h p.m. it ~~passed~~ the reading passed below 29 inches and continued to fall to 28.62 by 1h a.m. on the 23rd; it then immediately increased and continued steadily increasing to the 25th at 1h a.m. when it was 29.7, and it again then turned to decrease.

A letter was read, ~~[illegible]~~ from R. T. Paine Esq. of Boston, U.S. on the weather, and mentioning the remarkable fact of the reading of the barometer having been as high as ~~[illegible]~~ 30.88 at the level of the sea four times within the period of Jan 19, to Feb 19, 1851.

~~[illegible]~~

come in force

This motion was seconded by Mr Pargeter, and passed unanimously.

It was then moved by Lieut Farquhar and seconded by Mr Brayley, that the thanks of this Meeting be given to our Chairman after which the chairman returned thanks and the Meeting separated.

J. C. Whitbread
President

Report upon the first
ordinary Meeting of the
British Meteorological Society
[illegible]
&c

The meeting then took into its consideration the proceedings of the council, the Institutes &c, and after discussion, it was moved by Mr Brayley that the gentlemen whose names are now in the hands of the secretary as having been admitted members of this Society, constitute the British Meteorological Society, and this motion being seconded by Mr Drach, it passed unanimously.

~~Mr Brayley then moved that the Institutes~~

The Chairman then read the whole of the Institutes &c and

Mr Brayley moved that the Institutes as read be adopted as the rules of the Society excepting ~~section~~ article IV

this motion was seconded by the Rev. J. Hill and passed unanimously

It was then moved by Mr Drach that the Council have the power to admit members as hitherto, without exacting an admission fee, till the annual Meeting in May, when ~~section~~ article IV will come in force

This motion was seconded by Mr Pangal, and passed unanimously.

It was then moved by Lieut Farquhar and seconded by Mr Brayley, that the thanks of this Meeting be given to our Chairman after which the chairman returned thanks and the Meeting separated.

J. C. Whitbread
President

1851 May 27

The Council met at 13 Moorgate Street near the Bank

Present

J. C. Whitbread Esq. — President
Dr. Lee — Treasurer
J. Glaisher Esq — Secretary
W. [illegible] Esq — Librarian

The minutes of the last meeting were read and confirmed,

The Secretary proposed on the recommendation of N. Beardmore Esq, James Simpson Esq. C.E., of 30 Great George St. Westminster.

The Secretary proposed John Smith Esq, of the Royal Naval Schools Greenwich,

The [illegible], the Chief Baron, Sir F. Pollock
~~Guildford Street~~

The Secretary proposed on the Recommendation of E. J. Lowe Esq,
1 Captain James A. Legard R.N. Lenton Hall near Nottingham
and
2 Charles Paget Esq. Ruddington Grange near Nottingham
as members, these gentlemen [nomination were examined and these] were [illegible] elected and the Secretary was ordered to enrol their names and to announce the election to these Gentlemen

It was resolved that the Treasurer be instructed to send one of the printed papers respecting arrears to all members who are in arrears.

The Treasurer was ordered to pay the Clerk's bill for Stationery of £9. 4s. 10d

It was resolved that a set of our publications be presented to the Smithsonian Institution, by Henry Stevens Esq,

J. C. Whitbread
President

1857 May 27

The annual general meeting was held at 4 o clock.

The report of the President and Council was read.

The Treasurer report was read.

It was announced that there were 107 members at present. and, after some discussion it was resolved that

The Council have the power to admit members as hitherto without exacting an admission fee, till the last meeting in December 1851, after which time section IV of the Statutes to come in force

The present officers of the Society were re-elected with the addition of

G. W. [illegible] Esq as Foreign Secretary {on the motion of Mr Rutter, and seconded by [illegible]}

G. [illegible] Esq as Second Secretary [illegible] Mr Rutter

It was resolved on the motion of Mr W. R. [illegible] seconded by Mr Rutter, that the annual meeting in May, take place at 6 o clock, that is that the 39 [illegible] 9th article be altered from 4 o clock to 6 o clock.

J. C. Whitbread

President

1851 May 27

An ordinary meeting of the Society took place at 7 o clock.

The President in the chair

The annual report was read, as also the Treasurers report,

It was then moved by H. Pengel Esq, and seconded by the Rev James Hole that the Report now read by the President be printed, and this motion was passed unanimously

The following presents were announced

Meteorologic and Astronomical notices March 1851 by Prof. Piazzi Smyth.

The Institute vol 1. and 2d from the Proprietors

The time of occurrence of the daily atmospheric accuracies by Thomas Hopkins

Professor Quetelet of Brussels, on the Motion of Dr Lee and M. Mathieu, of the Paris Observatory, on the Motion of Mr Glaisher, were elected corresponding members of this Society

Thomas Hopkins Esq then read a paper on the daily variations of the readings of the barometer. After which, the Rev J. B. Reade exhibited the portion of a tree which had been struck by lightning and explained the particulars of the storm in which it was struck, &c &c

The Secretary read a paper by S. M. Drach Esq, on the Formularisation of Mr Glaishers Meteorological Corrections

It was then moved that the thanks of the Society be presented to the President

moved by Peter Legh Esq; seconded by the Rev H. Beattie

It was then moved that the thanks of the Society be presented to the Council for their valuable services in the first year of their existence

Moved by the Rev James Hole and seconded by Mr Brady

It was then moved that the thanks of the Society be presented to the Auditors

moved by S. Drach Esq, and seconded by Mr Beardmore

On the Motion of Mr Beardmore, the thanks of the Society were given to the Secretary –

J. C. Whitbread
President

1851 June 24

At a meeting of the Council held at Mr. Clark's Stationer at 13 Moorgate Street, near the Bank, London, on Tuesday June 24th, at 4 o clock

Present

The President
The Treasurer
The Secretary
The Rev. J. B. Reade
The Rev. C. Lowndes
W. Rutter Esq., Librarian
~~George~~
W. P. Dymond Esq, Foreign Secretary

The Minutes of the last meeting were read and confirmed

A letter was read from M. Mathieu thanking the Society for his election as an associate member, and another letter was read from Prof. Quetelet also thanking the Society for his election as an associate member

A letter was read from James A. Legard Esq. enclosing 2£ being the amount of his admission fee and first years contribution; it was resolved that a receipt for 2 years subscription be sent to him, as no admission fee was taken as yet

A letter was read from the Rev. C. H. Hartshorne stating that his name was inserted among the List of Members of Meteorological Society and that he was elected without his sanction,

Another letter was read from J. H. Lambe stating that he declined being a member of the Society

The Secretary stated that Mr Alderman Hopkins had sent a copy of the paper read by him to the Society at their last meeting, it was resolved to defer the printing to another time

The Secretary proposed ~~on the motion of~~ Robert Russell Esq of Kirkwhelpington by Cooper on the recommendation of Mr Lowe. This motion was seconded by Rev. J. B. Reade and passed unanimously

The Treasurer proposed Mr J. E. Gray as a member, seconded by Rev. C. Lowndes and this motion passed unanimously

The Treasurer was directed to pay to Mr Glaister the Assistant Secretary's Quarter's salary to June 30 - being the sum of 13£

It was resolved that the Council meet on August 26 at 6 o'clock, as there will be an ordinary Meeting at 7 o'clock

Charles Lowndes. Chairman.

1851 August 26

At a Meeting of the Council held at Mr Clark's Stationer, at 13 Moorgate Street, City, near the Bank, London, on Tuesday August 26, at 6 o'clock.

Present

The Secretary
The Rev. C. Lowndes
The Rev. J. B. Reade
W. Rutter Esq.

The Rev. Charles Lowndes in the Chair

The minutes of the last Meeting were read and confirmed,

The secretary read a letter from J. E. Gray Esq of the British Museum, stating that the announcement sent to him of his election as a member of this Society was erroneous, and that he supposed that it was intended for his son in law Mr Smith of Liverpool.

The secretary explained that he was present when Mr Gray spoke to Dr. Lee about the admission of Mr Smith, who was then with him, and hence the error arose,

It was then moved, that Mr G. Smith be substituted on our List of Members, instead of Mr J. E. Gray, and passed –

The secretary then proposed, on the recommendation of R. L. Jones Esq. of Chester that

Gilbert Burns Esq.,
Knockmaroon Lodge
Dublin

be admitted, and that

~~Horton~~ William Horton Ellis Esq
of Exeter,

as per Certificate signed, be admitted a Member.

These gentlemen were both admitted,

Mr Rutter, on the part of the Treasurer, submitted a bill amounting to £34.16 from Taylors; it was resolved to defer this bill for comparison with vouchers.

Saml. Chas. Whitbread
President

1851 August 26

At a General Meeting of the Society held at 13 Moorgate Street near the bank, London

S. C. Whitbread Esq in the Chair

The minutes of the preceding meeting were read and confirmed

A paper was read from Dr. Hoskins F.R.S of Guernsey consisting of Tables

1. Shewing the mean temperature of the air as determined by him at Guernsey in every month from December 1842 to December 1850; the mean temperature of each year, and of each quarterly period, and the same for all the years

(2) A Table shewing the mean ~~monthly~~ daily range of temperature, and ~~extreme~~ difference of extreme temperature in each month for the years 1843 to 1850, with the average values from all the years

(3) A Table shewing the fall of rain in ~~each month~~; the number of days it fell; the average direction of the wind for every month from January 1843 to December 1850; with the same particulars for each year

(4) A Table shewing mean monthly temperature of the dew point; the fall of rain; number of days rain fell; of Hail or Sleet; of days of snow; days of fog; days of thunder & lightning; of thunder alone; of lightning alone; and prevalent winds from Jan 1843 to Dec 1850

President

151 A Table of the mean Reading of the barometer in each month; in each year and from all the years from 1843 to 1850

A short paper was read by J. P. G. Smith Esq of Liverpool on the temperature of the atmosphere during and after the Eclipse of the Sun on July 28. 1851

A paper also was read on the Fall of rain at Bombay from the year 1817 to 18[?]0 by Dr. Buist

Jam. Cha. Whitbread
President —

President

1851 October 28

A meeting of the Council was held at 15 Moorgate street near the Bank London

Present

S. C. Whitbread Esq in the Chair
J. Glaisher Esq
E. Leach Esq
Rev. J. B. Reade
J. Rutter Esq

The Minutes of the last Meeting were read and confirmed

On the recommendation of Dr Lee, the Secretary proposed Sir David Brewster as a Member,

and also on the recommendation of Dr Lee Mr F Cole was proposed by the Secretary as a Member; Both these Gentlemen were elected

A sum of 13 £ was voted for the services of Mr the Gardener to September [illegible] and the Treasurer was desired to pay this sum

The sum of £3 4s. 16 being Taylor's bill for printing was ordered to be paid, subject however to some reduction so as to be in accordance with the vouchers. Mr Rutter undertook to see Messrs Taylor, and to arrange the amount to be paid.

Some little discussion took place relative to a monthly publication by the Society, but was deferred for the present on account of the absence

John Lee. Chairman

President

1851 November 25

A meeting of the Council was held at 13 Moorgate Street near the Bank London –

Present

S. C. Whitbread Esq

Dr Lee (In the Chair)

J. Glaisher

Rev. J. B. Reade

Mr Rutter

Mr Symons

The Minutes of the last Meeting were read and confirmed

Dr Lee Reported that he had paid 13£ to Mr Gordon for his services to Michaelmas 1851, and that he had paid 34.16 to Taylors as ordered at last Meeting

Dr Lee Reported that the following gentlemen had compounded for their annual Subscriptions

S. C. Whitbread

Mr Glaisher

Dr Lee

and that according to the resolution in force those sums with the two preceding should be invested in the Funds

On the motion of Mr Glaisher, seconded by the Rev. J. B. Reade, on the recommendation of John Wilson Esq

Dale Knapping Esq.
Sutton
South Shoebury
Essex

was elected a Member,

and on the Motion of S. C. Whitbread Esq, seconded by Dr Lee

Henry Pollock Esq 52 Davis Street, Berkeley Square and Hatton Hounslow was elected a Member

Some discussion followed relative to a periodical publication, and which was deferred till the next Meeting

Saml. Chas. Whitbread
President

See 7 leaves on for General meeting 1851 Nov 25

1851 December 22

The council met at 6 o clock at 13 Moorgate street near the Bank London

Present

S. C. Whitbread in the Chair

Dr. Lee

J. Glaisher

W. Rutter

H. I. Dymond

The minutes of the last meeting were read and confirmed

The Treasurer reported that he had funded all the Compositions in the 3 per cent consols viz 5 Compositions of £12 –

The President stated that the Chemical Society which meets at 5 Cavendish Square, had offered to this Society the use of their rooms as a meeting room for 20£ per annum, and that no liability whatever beyond this 20£ was to be incurred; such as for Taxes, fire, candles &c &c –

It was suggested that as the Porter would have to receive letters, to wait when the Society met, some gratuity would be req^d. to be given to him

After some discussion it was moved by the President that this offer be accepted.–

This motion was afterwards made by Mr Dymond, and it was seconded by Mr Rutter, and passed unanimously –

The council then proceeded to fill up the vacancies in the council, of which there are two, viz. one in consequence of Mr Rutter having the office of Librarian and a second in consequence of the resignation of Capt. Blackwood

Dr. Lee proposed, and Mr Dymond seconded, Henry Pollock Esq, as a member, and which proposition was carried

& Lee then proposed, and Mr Rutter seconded that Henry Perigal be elected a member of Council in the room of Capt. Blackwood, and this motion was also carried unanimously.

The Secretary announced a presentation from the American Philosophical Society of a copy of its proceedings.

The Secretary read a letter from Mr Brown of Uckfield, in application of a copy of Glaisher's Thermometrical Observations published in Phil. Trans. 1850, and which were ordered to be given to him.

The Secretary announced the receipt of a paper from Mr Park, superseding one he had sent last year, entitled Formulae of Maclaurin, Taylor &c, and he also announced the receipt of a 3rd paper, to supersede the preceding arising from the detection of some errors.

The Secretary announced the receipt of a paper giving notice of the formation of the Meteorological Society of Mauritius.

Some discussion, the subject was deferred till January 6, and this meeting was adjourned to January 6, and to meet at 5 Cavendish Square

Saml. Chas. Whitbread
President

1852 January 6

The Council met at 5 Cavendish Square by adjournment from 1851 December 22, for the purpose of arranging the evenings of Meetings throughout the Year 1852

Present

S. C. Whitbread Esq. in the Chair
J. Glaisher. Secretary
Revd J. B. Reade
J. Rutter Esq.
R. C. Lowndes
W. Pollock Esq.
H. Perigal Esq.

The Meetings of Council were arranged as follows:-

Tuesdays -	Feby	24
	March	23
	April	27
	May	25
	June	22
	August	24
	Oct.	26
	Nov.	23
	Dec	28

and the Ordinary Meetings

on Tuesdays,	Feby	24
	March	23
	April	27
	May	25
	June	22
	Nov.	23

To commence at 7 o clock.

An order was made on the ~~Secretary~~ Treasurer for paying 13£ to Mr Jordan, assistant Secretary for his services to December 31, 1851

Saml. C. Whitbread President

1852 February 24

The Council met at 5 Cavendish Square

Present

S. C. Whitbread Esq

Dr. Lee

J. Glaisher

W. Rutter

G. Leach

H. Perigal

W. P. Dymond

The Minutes of the last Meeting were read and confirmed

The Resignation of A. W. Davis M. D was read dated Tenby 12 Jan. 1852

On the Motion of Mr Glaisher, seconded by the Rev. J. B Reade, the Rev. J. M. Heath of Enfield Vicarage, was elected a Member

The Secretary gave notice of Mr. Gordon having left the office of Assistant Secretary, on January 31

On the Motion of Dr. Lee, seconded by Mr Glaisher Lieut. Maury, of the United States Navy was elected an Honorary Member of the Society

The Secretary then read several of the letters contained in a pamphlet entitled on the Establishment of an Universal System of Meteorological Observations by Sea & Land published at Washington, U. States, in consequence of the publication of the Instructions for taking Meteorological Observations by the Board of Ordnance.

Some considerable discussion took place, when it was resolved that the Secretary should write a letter describing of the Advance scheme pointing out its defects, and that the Council would meet this day week to consider the letter

Saml. Chas. Whitbread

President

1852 February 24

A general Meeting of the Society was held at 7 o clock
S. C. Whitbread Esq, in the Chair

A paper was read descriptive of the several Aurorae and Meteors seen at Darlington, by John Grahame Esq M.B.S. in the Year 1851

Communications were read from various Members of the Society on the fine Aurora of the preceding week particularly on that of Feb 19 - also of the Aurora of Feb 15, 16, 18, 19. 20, and 21, on which days Magnetic disturbance took place, to large amount as well as the needles in the lines of Electric Telegraph - were much deflected

Many papers were presented on investigations on the Ozone in the atmosphere by Dr. Moffatt of Hawarden
And many Meteorological Registers for the preceding Month of January, were exhibited.

Dr. Lee read a paper by Sir J. Ross on the changes which had taken place in Baffin's Bay during the time of his successive visits.

The thanks of the Meeting was given to those gentlemen who had forwarded these Communications

Some letters of Lieut. Maury were read on the proposed Universal System of Meteorological Obs.

Me

ON THE

ESTABLISHMENT OF

AN UNIVERSAL SYSTEM

OF

METEOROLOGICAL OBSERVATIONS,

BY

SEA AND LAND.

WASHINGTON:
C. ALEXANDER, PRINTER,
F STREET, NEAR NAVY DEPARTMENT.
1851.

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morning preceding

under the notion
of rain falling
at the time of a clear sky-

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CORRESPONDENCE

IN RELATION TO

A UNIVERSAL SYSTEM

OF

METEOROLOGICAL OBSERVATIONS.

FOR THE

SEA AS WELL AS FOR THE LAND.

British Legation,
Washington, Nov. 13, 1851.

Sir:—I have been instructed by Her Majesty's Government to present to the United States Government the printed volume which I have the honor to enclose herewith, which has been drawn up by Major General Sir John Burgoyne, Inspector General of Fortifications, for the purpose of enabling the officers of the Royal Engineers at foreign stations to take meteorological observations upon an uniform plan; and I am directed to say, that Her Majesty's Government would be glad to obtain such co-operation in regard to the objects to which those instructions relate, as the proper department of the United States Government may be willing to afford.

I avail myself of this opportunity to renew to you, Sir, the assurances of my highest consideration.

(Signed) JOHN F. CRAMPTON.

The Honorable Daniel Webster, &c., &c., &c.,

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Capt. Smith addressed
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at the time of a clear sky -

DEPARTMENT OF STATE,
Washington, Nov. 14, 1851.

SIR:—I have the honor to transmit to you, herewith, the copy of a note just received from Her Britannic Majesty's Chargé d'Affaires in this city, together with the printed volume which accompanied it, relative to the coöperation of the Government of the United States with that of Her Britannic Majesty, in carrying out a plan which it has adopted, for the taking of uniform meteorological observations at foreign stations, and to invite your attention to the subject.

I am, Sir, very respectfully,
Your obedient servant,
DANIEL WEBSTER.

Hon. WILLIAM A. GRAHAM,
Secretary of the Navy.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
Nov. 19, 1851.

SIR:—With this you will receive a communication from the Chargé d'Affaires of Great Britain to the Secretary of State of the United States, covering a printed pamphlet in relation to meteorological observations, and proposing a coöperation by the officers of our Government in making similar observations.

After perusing them you will please state whether such coöperation could be made at the Naval Observatory without interference with other duties, or making any material changes in any arrangements which may now be in use there, for similar purposes. You will also give your views whether any useful coöperation, direct or indirect,

could be furnished by our vessels at sea, with the instruments usually furnished to them, or at any of our Navy Yards, either with their present instruments or by the aid of others to be furnished for that purpose; and if so, at what yards such observations would be most desirable, having regard to the observations of this kind which are known to be made at different places in connection with the Smithsonian Institute, and public observatories.

Return all the enclosures after perusal.

Respectfully, your obedient servant,
C. MORRIS,
Chief of Bureau.

LIEUT. M. F. MAURY,
Supt'dt., &c., &c., Washington.

NATIONAL OBSERVATORY,
Washington, Nov. 21, 1851.

SIR:—I have the honor to acknowledge the receipt of yours of the 19th inst., inclosing a communication from the Chargé d'Affaires of Great Britain to the Secretary of State of the United States, with certain other papers and documents, relative to a proposition by the British government, to the effect that the government of the United States will cause its officers who are engaged in making meteorological observations, to coöperate with the Royal Engineers engaged upon like duties on foreign stations, according to the plan set forth in the "Instructions for taking meteorological observations at the principal foreign stations of the Royal Engineers," drawn up by Major General Sir John Burgoyne, Inspector General of Fortifications.

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...of rain falling
at the time of a clear sky –

I am directed by you to state "whether such coöperation could be made at the Naval Observatory without interference with other duties, or making any material changes in any arrangements which may now be in use there for similar purposes;" also, to give my "views whether any useful coöperation, direct or indirect, could be furnished by our vessels at sea, with the instruments usually furnished to them; or at any of our Navy Yards, either with their present instruments, or by the aid of others to be furnished for that purpose; and if so, at what yards such observations would be most desirable, having regard to the observations of this kind which are known to be made at different places, in connection with the Smithsonian Institute and public observatories."

In reply, it gives me pleasure to state that the desired coöperation can be made at this Observatory, and at the naval stations generally, without interference with other duties, and with very slight changes in fixtures and arrangements now in use for like purposes.

This is an important subject. Many of the great interests of state, and the well-being of the human family are to be advanced by increase of knowledge touching the dynamical laws of the atmosphere, and the distribution through it, over the surface of our planet, of electricity, heat and moisture.

For the fruits of his labor the husbandman is dependent upon atmospherical conditions; and commerce is controlled by the course of the winds. The subject, therefore, is one of high scientific interest, and of great national, industrial, and practical import. The step proposed by the British government is in the right direction: wherefore, to make myself the more clearly understood, I may

be excused for referring to the meteorological system of the United States, and for offering a few suggestions amendatory of the British proposition.

The government of the United States has its own system of meteorological observations: one for the sea, another for the land.

Some of the States, as New York and Massachusetts, have, on their own account, established their system of meteorological observations also.

Also, some of the institutions of the country, as the "Smithsonian," and many of our fellow-citizens, are likewise actively engaged in meteorological researches.

The meteorological observatories that are under the control of the different States, of the institutions, and of the private citizens of the United States, amount to several hundred. These extend from the shores of the Atlantic to those of the Pacific, and from the farthest northern boundary to the extreme southern limits of the United States.

Over these widely scattered observatories, and over this large corps of observers, their time for observation, their mode and means of observing, and their methods of recording the results of their labors, the government of the United States has no control whatever; nor can it exercise any, except such as may flow from precept and example.

Nevertheless, these observatories, both national, state and private, for the most part, act in concert. They mostly employ the same instruments, refer to the same standards; many of them observe at the same hours, use the same methods, and record by the same forms, most of which differ more or less from those recommended by Major General Sir John Burgoyne for the nineteen "foreign stations of the Royal Engineers."

I do not mean to draw comparisons, or to imply that, of the American and English systems, one is better than the other; far from it. Each is good; and if either be adopted, and made common to the two countries, the science of meteorology would be vastly benefited and advanced thereby.

If the government of the United States, therefore, without proposing amendments to the English system, were to direct its officers, who are engaged with meterological observations, to adopt the plan, modes and methods of that system, it would create confusion among our observatories, and be as likely to retard as to advance the progress of meteorological research in the United States.

For this reason I beg leave to suggest a meteorological conference.

By authority of the government, I have been permitted to invite the coöperation of American shipmasters in making daily, in all parts of the ocean, as they pursue their voyages to and fro, a series of meteorological observations.

By an act of Congress, authority has been given for all the vessels of the Navy to do the same.

The object of this coöperation is not only to improve, for the benefit of commerce and navigation, our knowledge with regard to the winds and currents of the sea, but to investigate the laws of atmospherical and oceanic circulation, and to advance the science of meteorology generally.

Under this invitation, more than a thousand American merchant vessels are engaged in making and recording their observations according to a prescribed form. At the end of the voyage their journals are regularly returned to this office.

They constitute the materials from which the "wind and current" charts are constructed. These charts, on account of the meteorological information they afford, have led to the developments of new and shorter routes across the seas, and to several other results of interest and value. I beg leave to send a set of them, the explanations which accompany them, &c., for the inspection of Her Majesty's officers.

About five-sevenths of our planet is covered with water. It will be perceived, therefore, that in studying the course of the "wind in his circuits," and investigating the laws which govern the general circulation of the atmosphere, we must look to the sea for the rule—to the land for the exceptions. Therefore, no general system of meteorological observations can be considered complete unless it embrace the sea as well as the land.

The value of the researches conducted at this office with regard to the meteorology of the sea, would be greatly enhanced by coöperation from the observatories on the land.

Observers with the requisite instruments for this purpose, are already at the principal stations. It is as convenient for them to observe in, as without, concert; for to observe in concert, and according to a uniform plan, would be attended neither by an increase of time, labor or expense; but on the contrary, be a saving of all.

Hence, another reason for suggesting a conference upon the subject of a uniform system of meteorological observations on board British and American ships, as well as at British and American posts, stations and observatories. On board of every properly appointed ship of both nations, all, or nearly all, the observations which would probably be recommended for this universal system, are already

made. It is the custom to keep a log-book on board of every ship, and to enter in that log-book remarks and observations upon the winds, the weather, and the sea; and all that is requisite to impart a new and a greater value to these observations, is that they should be made all at the same time, recorded in a stated journal—the "abstract log" kept for the purpose—and then be made available by being returned to the office appointed to receive them.

The atmosphere envelopes the earth, and all nations are equally interested in the investigations of those laws by which it is governed. There is Russia, upon whose territories the Sun, except in the long night of the Polar winter, never sets, perhaps she, of all nations, has gone to the greatest expense in establishing meteorological observatories on the land, in collecting and publishing results, &c.

From what has already passed between Kupffer, the Russian meteorologist, (also in charge of the mines,) and myself upon the subject, I am induced to believe that he is already authorized, by the proper authorities in that country, to confer with the proper authorities in this, as to the establishment of a uniform system of meteorological observations on the land, for the two countries.

The achievements of France and Germany, in the paths of science, and the monuments they have erected in its name, do not admit us to doubt but that they, too, would readily and most heartily second any move which has for its object the great good of establishing, among civilized nations throughout the world, a uniform and universal system of meteorological observations.

There are other nations of Europe not a whit behind Germany and France in their devotion to science, their love of the useful.

For these reasons I therefore respectfully suggest that as an amendment to the British proposition, a more general system be proposed. That England, France, Russia, and other nations be invited to coöperate with their ships, by causing them to keep an abstract log, according to a form to be agreed upon, and that authority be given to confer with the most distinguished navigators and meteorologists, both at home and abroad, for the purpose of devising, adopting, and establishing a universal system of meteorological observations for the sea as well as for the land.

Respectfully, &c.,

(Signed) M. F. MAURY.

Lieut. U. S. N.

Com. Chas. Morris,

Chief of Bureau of Ord. and Hyd., Present.

Bureau of Ordnance and Hydrography,

Dec. 5, 1851.

Sir:—I have the honor to acknowledge the receipt of your letter of the 17th ultimo, which covered a note to the Secretary of the Navy, from the Secretary of State, transmitting a communication from Her Britannic Majesty's Chargé d'Affaires in this city, and a printed volume relative to the coöperation of the Government of the United States with that of Her Britannic Majesty, in carrying out a plan which it has adopted for the taking of uniform meteorological observations at foreign stations.

To enable me to state more fully the extent to which the Navy is prepared to unite in the proposed coöperation, than my recent connection with this Bureau enabled me to do from personal knowledge, a letter was addressed to the

Superintendent of the Observatory—a copy of this letter, and of Lieut. Maury's reply, are herewith enclosed.

With the set of Wind and Current Charts, and explanations of them, which have been furnished by Lieut. Maury, I forward Professor Espy's Third Report on Meteorology, and a communication received from Professor Henry, of the Smithsonian Institution, on the same subject.

Collectively, they show the general character and extent of the meteorological observations which have been made in the United States; and the practical and useful application which has been made of these observations, that have been collected under the direction of the Navy Department. The transmission of these, for the inspection of the officers of Her Britannic Majesty, who are engaged or interested in similar observations, is respectfully suggested and submitted for your decision.

Although I concur in the opinion of Lieut. Maury, that it would be inexpedient to substitute, at this time, the plan for observations proposed by General Burgoyne, for that now followed in establishments and vessels under the direction of the Navy Department; changes and additions could probably be made, which could secure a nearer approach to uniformity in our shore establishments, without producing confusion, and they are respectfully recommended to that extent.

The suggestions for a more general and widely extended coöperation upon some uniform plan, promises so many advantages, that hopes may be reasonably indulged for its eventual adoption.

Notwithstanding strict uniformity cannot be yet secured between the observations made by our officers and the British Sovereign's, an interchange of such observations or

of the deductions drawn from them, seem to be very desirable, and a proposal for such exchange is respectfully suggested.

With much respect, I am,
Your obedient servant,
CHARLES MORRIS,
Chief of Bureau.

To the Hon. Wm. A. Graham,
Secretary of the Navy.

Navy Department,
December 6th, 1851.

Sir:—The communication from the State Department of the 14th ultimo, transmitting a copy of a note from Her Britannic Majesty's Chargé d'Affaires in the city of Washington, together with the printed volume which accompanied it, relative to the coöperation of the government of the United States with that of Her Britannic Majesty, in carrying out a plan which it has adopted for the taking of uniform meteorological observations at foreign stations, and inviting the attention of this Department to the subject, was duly received, and referred to the proper bureau for a report as to the extent to which the Navy of the United States is prepared to unite in the proposed coöperation.

This Department, appreciating the importance of coöperation in the meteorological researches between the officers of the Royal Engineers of Her Britannic Majesty's Army, and the officers of the United States, acting under the authority of the Navy Department, cordially reciprocates

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daily- was held
the Chair
Capt. [illegible] address
instance of [illegible]
land, as seen by the
change [illegible] by
of a triple tide
Monday preceding
under the notice
of rain falling
at the time of a clear sky—

the spirit in which the proposition of the British government is made.

Concurring in the opinions and approving the suggestions contained in the accompanying letters from the Chief of the Bureau of Ordnance and Hydrography, and from the Superintendent of the Naval Observatory, as to the importance of a system of meteorological observations which shall harmonize and be a guide and rule among observers generally, both at sea and on land, I beg you will assure Her Britannic Majesty's Chargé d'Affaires that it would afford not only this Department, but the institutions of our country, great satisfaction to see British and American ships, American and British meteorologists, coöperating with others in establishing a general and comprehensive system of observations, and of carrying it out in such a manner that an observation in one part of the world may be readily referred to and compared with like observations made in other parts of the world; and that for the purpose of giving practical effect to these views, the Superintendent of the Naval Observatory is authorized to confer as to such an uniform plan, with Her Majesty's officers, and others of proper jurisdiction, at home and abroad, and, in concert with them, to agree upon a system of observations both for the sea and the land, and which, by being common, effective, and of easy execution, may be followed by meteorologists and navigators generally.

And in connection with this subject, I have the honor to transmit with this communication, a letter from the Chief of the Bureau of Ordnance and Hydrography, with one from the Superintendent of the Naval Observatory, and one from Professor Henry, of the Smithsonian Institution; also, Lieutenant Maury's sailing instructions, with

his wind and current charts, and Professor Espy's second and third Reports on Meteorology.

With very great respect,

I have the honor to be your obedient servant,

(Signed) WM. A. GRAHAM.

Daniel Webster, *Secretary of State.*

Navy Department,

December 6th, 1851.

Sir:—Enclosed with this you will receive a copy of a letter from the Honorable Secretary of State to this Department, and the reply thereto, as well as a copy of one from the Chief of the Bureau of Ordnance and Hydrography, relative to the coöperation of the government of the United States with that of Her Britannic Majesty, in carrying out a plan which it has adopted for the taking of uniform meteorological observations at foreign stations.

In furtherance of the views expressed in the letter from this Department to the Secretary of State, you are hereby authorized to confer with Her Britannic Majesty's officers, and others of proper jurisdiction, at home and abroad, and in concert with them, to agree upon a system of observations, both for the sea and the land, which may be followed by meteorologists and navigators generally.

And you will report to this Department, from time to time, the progress made and the results reached in the adoption of such uniform system of observations.

I am, very respectfully,

Your obedient servant,

WM. A. GRAHAM.

Lieut. M. F. Maury,

Sup't U. S. Naval Observatory, Washington, D. C.

*Extracts from "Instructions for Taking Meteorological Observations,—Drawn up by Order of the Inspector General of Fortifications, by Captain Henry James, R. E., F. R. S. &c."**

"A 'notice' of the arrangements which have been made for having Meteorological Observations taken at the principal foreign stations of the Royal Engineers, has been published in the corps papers for this year; this "notice," with some alterations and additions, is now printed as a separate paper, as instructions for the observers.

Since the publication of the "notice," Major General Sir J. Burgoyne has, with the sanction of the Master General of the Ordnance, invited the co-operation of the Honorable Board of Directors of the East India Company, and the Board of Admiralty, for having similar observations taken in India, and at those places where the Admiralty have officers competent for the duty, and where there are no other meteorological observatories; and, in consequence, the Board of Directors have ordered twenty sets of instruments to be sent to India, and the Admiralty have ordered four sets to be sent to Ascension, Rio de Janerio, Callao and Valparaiso. All the instruments are of a similar construction, and will be compared with the standards at the Royal Observatory at Greenwich; thus, with the observations taken at the different Government observatories, both at home and abroad, and by the members of the Meteorological Society of London, who have provided themselves with similar instruments, and have many zealous observers amongst their number—and with the observations taken in the different States of Europe and America, under the patronage of their respective Governments—and by Her Majesty's Consuls abroad, who have been instructed by Lord Palmerston

*Circulated by order of Major General Sir John Burgoyne, K. C. B., Inspector General of Fortifications, &c., &c.

to carefully observe and accurately record atmospheric phenomena, to determine the laws, by which storms and variable winds are generated (see his Lordship's letter and inclosures in the appendix*) that a greater combination has been effected for collecting accurate data connected with the science of meteorology, than was ever before attempted. The observers, therefore, are earnestly requested zealously to perform their several parts, by regularly and carefully registering their observations, so as to make each set of observations as complete as possible, and thus to furnish accurate data for determining the laws of atmospheric phenomena, and the peculiarities of the climate of the different parts of the world.

The following memorandum from the Inspector General of Fortifications has been addressed to the commanding officers of Royal Engineers:

'It having been suggested to the Master-General that it might be highly useful to science if a series of meteorological observations were recorded in different parts of the world, on one uniform system, under instructions and by authority, his Lordship has consented that the object should be carried out at the nineteen stations as enumerated below, by or under the immediate directions of the Commanding Royal Engineers at each.

Names of Stations.

1 Bahama,	7 Demerara,
2 Barbadoes,	8 Gibraltar,
3 Bermuda,	9 Guernsey,
4 Cape,	10 Halifax.
5 Ceylon,	11 Hong Kong,
6 Corfu,	12 Jamaica,

*P. P. 16--25.

...al Meeting

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...the chair

...Capt. Smyth addressed
... instance of horizontal
... land, as seen by her

... changes

... of a triple tide
... mornings preceding

... under the notice
... of rain falling
at the time of a clear sky.

13 Malta, 17 St. Helena,
14 Mauritius, 18 Toronto,
15 Newfoundland, 19 Quebec.
16 New South Wales,

'Instruments, instructions and books of reference of an uniform description will be forwarded to each station.

'The endeavor, in the arrangements, has been to commence, upon a system that shall be compatible with the acquirements of any officer of Engineers, and that shall enable him without difficulty to take measures for a due record being kept, of every matter required, and, at the same time, not call upon any exertions or unnecessary attendance that shall interfere with the more regular necessary duties of the Department.

'The Inspector General of Fortifications attaches very great importance to this measure, and trusts to meet with the zealous co-operation of the several commanding Royal Engineers, to carry it out in the most perfect manner.

'He requests an early communication from the Commanding Royal Engineers of the first measures taken by them in the matter, with any remarks they may have to offer, and subsequently he would be glad of information, from time to time, of the mode and regularity of the proceedings, with any circumstance worthy of observation."

From the Appendix to the same.

"FOREIGN OFFICE,
April 30, 1851.

SIR: I transmit to you copies of a letter, with its inclosures, which I have received from Colonel Reid, of the Royal Engineers, who for many years has devoted his attention to the theory of storms, and whose object has

been to investigate, with a view to practical use in navigation, the laws by which storms and variable winds are governed.

In order that an investigation of this nature may be practically useful, it is essential that facts connected with the atmospherical phenomena in question should be carefully observed and accurately recorded over as large a portion as possible of the surface of the globe by persons of education, and whose scientific attainments or professional avocations qualify them for making such observations.

Colonel Reid has suggested that such observations could be most easily made and recorded by captains of ports, masters of light-houses, harbor masters, and others, whose professional pursuits naturally lead them to be constant observers of atmospherical phenomena.

The inclosures in Colonel Reid's letter will more fully point out the manner in which information on the subject of storms may be collected.

I have accordingly to instruct you to use your best endeavors to procure such information on this important subject; and you will transmit to me half yearly an abstract of the information you may have obtained, with such remarks as may suggest themselves to you. If you can add diagrams to show the tracks of any remarkable storms, it would greatly add to the value of your reports. As it is of importance to circulate as widely as possible information as to storm tracks, you should encourage the publication of such information in newspapers and periodical works.

I am, sir, your most obedient,
Humble servant,
(Signed) PALMERSTON.

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[Inclosure—1.]

Lieutenant Colonel Reid to Viscount Palmerston.

14 Kensington Gore,
April 15, 1851.

My Lord: I have the honor to acknowledge the receipt of your Lordship's letter, dated 20th March, 1851, transmitting to me certain documents on the subject of storms. I have sent copies of the whole of them to Mr. Redfield, of New York, having asked the favor of the American Minister to transmit them for me, I inclose herewith a copy of a letter, which I wrote to Mr. Lawrence on transmitting the second set of documents, with the answer which I have received in return.

I have no doubt that the representations of Mr. Lawrence will have the effect of extending these combined Meteorological Observations, hitherto confined to the North Atlantic ocean, to all other parts of the world where American and British officers meet.

I venture to suggest to your Lordship, that a copy of the letter which Mr. Lawrence has addressed to me be circulated amongst the British Consuls. I inclose also a copy of a circular letter, which was addressed by Lord Glenelg, in 1838, to the Governors of all the British Colonies, which circular letter describes the manner in which information on the subject of storms may be collected; and which if your Lordship should think fit also to transmit it to the consuls, it would serve as a very useful guide to them.

I must apologize to your Lordship for proposing to give so much trouble: but I do so from a conviction that further knowledge of the atmospheric laws can only be obtained

by interesting very many individuals in the inquiry over extended portions of the globe.

I have, &c.

(Signed) WM. REID,
Lieut. Colonel Royal Engineers.

[Inclosure—2.]

Lieutenant Colonel Reid to Mr. Abbott Lawrence.

14 Kensington Gore,
April 10, 1851.

Sir:—After I had sent to your Excellency, on the 3d instant, some documents on the subject of Atlantic storms, I received the enclosed papers from the Foreign Office, sent to me by the direction of Lord Palmerston. As these particularly relate to a storm which Mr. W. C. Redfield has been tracing, I beg you will do me the honor of transmitting them for that gentleman.

I take the liberty of informing your Excellency that the attention of the Governors of all British Colonies has been long ago directed to the furtherance of the study of storms, and that Lord Palmerston has directed the attention of British Consuls to the same subject. More recently, an order has been given by the Ordnance Department, to send Meteorological instruments to the commanding engineers at all the British Colonial stations. The American and British people have an immense advantage in using the same language, which has enabled us to trace the storm tracks from the West Indies to Labrador, and thus to make a great step in advance in Meteorological science.

My object in entering into this explanation to your Excellency, is respectfully to suggest for your consideration, whether great benefit might not result if your Government

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would invite your Consuls and Naval Officers, wherever stationed, to join their efforts to those of British Consuls and Officers, in investigating the laws of the winds. A notice published in India by the Governor General, by desire of the Court of Directors, has led to the most important practical results. It is by the combined efforts of American and British, that the knowledge we now possess of Atlantic storms has become of great practical use in navigation, and the unlimited extension of similar efforts to other seas, would, I trust, be of benefit to mankind generally.

I have, &c.

(Signed) WM. REID.

[Notification.]

CALCUTTA,
Wednesday, September 11, 1839.

The importance of investigating the course and phenomena of storms, has been brought to the notice of Government by the Honorable Court of Directors, and the Honorable the President in Council, is in consequence desirous of obtaining local registers of these phenomenas, taken simultaneously at as many stations of India as may be found possible. The public officers of the different settlements and stations of India, are accordingly invited and requested, upon the occurrence of any hurricane, gale, or other storm of more violence than usual, to note accurately the time of its commencement, the direction from which the wind first blows, whether in gusts or regular, and whether accompanied with rain, thunder and lightning, or other phenomena. Also, to note, with as much accuracy as possible, the changes of direction in the wind, and the time of oc-

currence of each; and lastly, the duration of the gale, and in what quarter the wind is when it ceases. The variations of the thermometer and barometer at each period noticed, will also be of importance, if the means are forthcoming of making such observations.

The President of the Council refrains from making it the business of any particular officer to note the above circumstances, but relies on the known desire of all enlightened persons to promote objects of scientific and useful enquiry that the public officers will arrange in such a manner as to insure that the observations will be taken by some one in the vicinity of each station.

Reports upon matters of the description comprehended in this order may be forwarded to the Secretary to Government in the General Department, free of postage (superscribed "Storm Report.")

A scientific gentleman* in Calcutta has obligingly undertaken to combine all reports, that may be so received into a synopsis for exhibition of the results, in the manner adopted and recommended by Colonel Reid, R. E.

By order of the honorable the President of the Council of India in Council.

(Signed) H. T. PRINSEP,
Secretary to the Government of India.

[Inclosure—3.]

Mr. Abbott Lawrence to Lieutenant Colonel Reid.

LEGATION OF THE UNITED STATES,
London, April 11, 1851.

SIR:—I have the honor to acknowledge the receipt of your letter of yesterday, inclosing for Mr. Redfield a report

"*Mr. Piddington."

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from Her Majesty's Consul at St. Michael's, of a storm in the Atlantic. I shall have great pleasure in forwarding these to Mr. Redfield, as before, through the Government at Washington, and I shall, in compliance with your suggestion, invite its continued attention to this subject, as I am fully sensible of the important results that may flow from observations vigorously prosecuted with the extended means the Mercantile and Naval Marines and the Consular force of Great Britain and the United States afford.

I have, &c.

(Signed) ABBOTT LAWRENCE.

[Inclosure—4.]

Circular to Governors of British Colonies.

DOWNING STREET,
November 29, 1838.

SIR:—I transmit to you a copy of a work lately published by Lieut. Col. Reid of the Royal Engineers, entitled "The law of Storms." The object of the work is to develope, with a view to practical uses in navigation, the laws by which storms and variable winds are governed. In order to make an inquiry of this nature truly useful, it is essential that the facts connected with such phenomena should be collected and arranged over an extended surface, and that accurate records of them should be kept by persons whose education and scientific or professional avocations enable them to estimate the value of such records.

It has been suggested to me that such records could be most easily obtained, and the inquiries on which Colonel Reid has entered be most advantageously followed up, by inviting the cöoperation of captains of ports, masters of light-houses, harbor masters, and others, whose profes-

sional pursuits naturally lead to the observation of atmospheric phenomena.

A perusal of the inclosed work will convince you of the interest and importance of this inquiry, and I feel assured that you will be anxious to do all in your power for its promotion.

I would, therefore, request you to communicate with such officers or private individuals in the colony under your Government, as may appear to you best qualified to furnish information on the subject, pointing out to them the service which they would render to science, by keeping journals of such phenomena as may come under their respective observations.

The form in which such journals should be kept is suggested in the memorandum herewith inclosed.

If you should succeed in setting on foot a system of observations, you will have the goodness to transmit to Her Majesty's Government, half yearly, an abstract of the journals at your command; and I would suggest that you should endeavor, as much as possible, to obtain authentic information of the same nature from the foreign countries in your neighborhood.

I have, &c.,

(Signed) GLENELG.

Memorandum respecting the records to be kept of the state of weather in the British Colonies.

The Captains of ports, harbor masters, and keepers of light-houses, or where those officers do not exist, some other competent public functionary should be requested to keep journals of the weather, on the principle of the Log-

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books of ships. A column should be specially reserved for inserting the height of the barometer.

Under the head of "Remarks," should be entered all Meteorological Observations considered worthy of particular notice.

When a keeper of a journal may hear that a vessel has encountered a storm, he will enter in it any information on the subject which he can rely on, together with the name of the ship, of her owner, and of the port to which she may belong.

With the view of tracing the course of storms, the Trinity Board of London have given directions for the adoption of measures to obtain a more accurate record of the state of the weather, than has hitherto been kept at the light-houses of Great Britain and Ireland.

The keepers of these lights having the opportunity of taking their observations, by night as well as by day, great advantage may be derived from employing them in this manner. Officers in charge of colonial light-houses, should be instructed to keep similar journals. In noting the wind's force, both in the harbor masters' journals and in the light-house reports, it is desirable that the officers should adopt the numbers for denoting the strength of the wind in use at Greenwich Observatory, and about to be introduced at the light-houses under the Trinity Board.

In the cases of St. Helena and Ascension, it is desirable that more precise information respecting the "Rollers" at those Islands should be obtained.

As the object of Her Majesty's Government, in instituting these inquiries, is the advancement of knowledge or science generally, the Governors of the several British Colonies will consider how far it may be in their power to

obtain useful information bearing on the subject, from countries adjoining to their Government in the possession of foreign powers, or how far it may be useful to the study of Meteorology, to exchange the observations made within their Governments, for those of other countries in the neighborhood.

If at any time desired, there would be no objection to the publication in the colonial newspapers of extracts from the journals."*

I have deemed the foregoing necessary to a proper understanding of the question herewith submitted to the seafaring, the Meteorological and Scientific communities of the world, and for the information of all others upon whose co-operation and assistance, the successful accomplishment of the important objects in view, depends.

It will be observed that the Meteorologists and Government of Great Britain have already taken steps for enlisting a large corps of laborers in the Meteorological field, and that the American proposition is offered only as an amendment thereto.

To make the system complete, it appeared necessary to spread it out over the sea, as well as the land; and to secure the requisite concert of action among observers in all countries, it was thought advisable to propose a conference of Meteorologists generally, at which the kind and construction of the instruments to be used, the subjects of observation, the time and method of observing, with the form of recording the observations, &c., may be discussed and arranged; and at which, also, all the arrangements for a universal

*See pp. 23–28—Appendix to Instructions for taking Meteorological Observations at the Principal Foreign Stations of the Royal Engineers.

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system of observation, including a series for the sea as well as for the land, may be made, and the plans for carrying them out recommended for the approval and adoption of those upon whose co-operation the successful prosecution of the scheme must rely. It is proposed that this conference shall be as general as is the field of research; and, therefore, it is desired that all those who have it in their power to assist, will take part in its proceedings, either by personal representation or written communication, as to them may seem best.

The time and place for holding this conference, have not been agreed upon; but as soon as they are, they will be made known. In the mean time, communications have been addressed to the diplomatic functionaries of the various Governments represented in Washington, requesting them to bring the subject to the notice of their Governments. The replies of these gentlemen are encouraging: they give reason to expect that their Governments will give the proposition a favorable consideration.

After the details of the plan shall have been agreed upon in conference, it is supposed that the parties therein represented will co-operate in giving effect to the plan, by directing the observations to be made according to it, on board public ships, at Military Posts, at Light-Houses, Hospitals, and all other Government establishments and institutions at which it may be convenient or desirable to institute a series of meteorological observations.

But, as important as such a co-operation on the part of Governments would be, and as greatly to be desired as it is, that co-operation would by no means cover the whole ground; nor would the corps of laborers thus brought into the field, though every State in Christendom should unite

in the scheme, be sufficient to gather the harvest that it is proposed to reap.

The plan, though it fully recognises the value of the aid which Governments can give, by no means overlooks the importance of that kind of co-operation and aid which is to be derived from the hearty good will of good men, and from the voluntary co-operation of that powerful corps of Meteorological observers and navigators who labor in the private walks of life.

"Man is a Meteorologist by nature;" and every one who observes the wind and the weather, and who is in the habit of noting the thermometer and the barometer, is already an observer whose services it is desired to secure, and whose labors in the field meteorological, the plan in contemplation proposes to make available. In like manner "all who go down to the sea in ships," are invited to co-operate: for they, too, are observers. That this immense corps of laborers who are already in the field should act in concert and "pull together," is the object of the present plan Therefore, the men of science, the scientific societies, the ship owners and ship masters, the directors of corporations, and the faculties of universities, and the members of the various institutions for the promotion of science, and good men everywhere, are requested to lend this scheme their good will, their influence, their aid, and their co-operation.

The importance of concert among Meteorologists all over the world, and of co-operation between the observer on the shore and the navigator at sea, so that any meteorological phenomenon may be traced throughout its cycle both by sea and land, is too obvious for illustration, too palpable to be made plainer by argument. And therefore

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the proposition for a general conference to arrange the details of such a comprehensive system of observations, addresses itself to every friend of science and lover of the useful in all countries.

The domain of this science is the atmosphere: its boundaries embrace the land and cover the sea. To comprehend the laws which govern the movements of a machine so vast as it is, requires that its operations should be observed in all its parts, and watched from all points at the same time. Its motions are freer and less obstructed over the water than they are by the land and across the mountains. Indeed, the ocean itself may, in one sense, be regarded as a grand expression of meteorological agencies; therefore the good-will and friendly co-operation of private ship owners and masters, in all maritime countries, is considered of great importance to the cause in hand.

Many of these in America have already shown their willingness to enter this field as co-laborers. Several hundreds of them are already co-operating with me in a system of observations according to a prescribed form, and from which several highly important results, both practical and scientific, have already been obtained. It is presumed that the ship owners and masters of other countries will be equally as willing, and equally as zealous to second and to take part in such a system of observations as those of America have shown themselves to be.

These observations at sea possess a double value: they help us, as do those on the land, to a right understanding of the meteorological machinery of the earth; and they also help us in the safe navigation of the seas and in the industrial pursuits of commerce.

By how much the commercial marine of every country

is more extensive than its naval, by so much more valuable is the assistance which the former is capable of rendering. How far are the owners and masters of the private ships under the various flags, inclined to furnish their vessels with the necessary instruments—to use them—to record the observations all according to the same form—and at the end of each voyage, to transmit them to the Repository that may be designated to receive them?

Upon the answer which the sea-faring community of each nation, shall give to this question, depend the importance of the aid, and the value of the co-operation which they will render in this undertaking. If they will but unite in one long pull together, the ocean, at their word may be covered with floating observatories, each one without interruption to owners or inconvenience to master, propounding as he goes, the same questions to nature; and all of them may, at the same instant, though scattered over the whole face of the earth, be extracting and recording her answers thereto.—These answers when brought together, compared and sifted, cannot fail to reveal truths and principles of the highest interest to mankind.

The missionaries who are stationed among the islands and in heathen lands form also a class capable of rendering the most valuable assistance in any comprehensive system of meteorological observations. As a corps of observers they are not to be excelled—they visit parts of the world which cannot be brought under the system except through their instrumentality. While teaching savage man the principles of Christianity, and spreading around him the blessings of civilization, these devout men have also rendered most important services to the cause of science; and it is not doubted that when such a subject as this shall be brought to their notice, they will gladly lend it co-operation also.

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Such are the classes and the individuals for whose consideration I now submit the proposition for a universal system of meteorological observations, for concert of action between the navigator at sea and the observer on shore, and for a general conference in which all the details connected with such a system shall be discussed and arranged.

As before stated, the subject has been brought officially before the various governments, through the regularly appointed channels of communication. They have been invited to assist and coöperate.

It is proposed, therefore, before taking any definite action either as to the further details, or as to the time and place for holding the conference, to wait for the replies to these communications. In the mean time, however, I avail myself of this means of bringing the subject to the notice of the meteorologists, navigators, and the friends of science generally, with the hope that thereby the cause will be advanced, and that all whose good will, friendly councils, and coöperation are concerned, will take the matter into consideration, and be prepared to lend their support to a scheme which has for its object nothing but universal good.

To prevent misconception, it is proper to state that the plan proposed is based upon the principle of voluntary coöperation, and that I have no authority to pledge the Government of the United States for any expense whatever.

All of which is respectfully submitted,

M. F. MAURY,
Lt. U. S. N.

U. S. N. OBSERVATORY,
December 13, 1851.

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To invite the co-operation of *the Royal Meteorological Society of Great Britain*

The Government of Great Britain having greatly enlarged its system of meteorological observations, and wishing to extend it still farther, invited the co-operation of the Government of the United States therein; the Government of the United States appreciating the importance of the subject and desiring to make the system of observations universal, suggested the propriety of including the sea as well as the land, and of enlisting in the meteorological field the voluntary co-operation of the commercial as well as the aid of the naval marines, not only of England and the United States, but of all other maritime nations.

For more detailed information upon the subject I refer to the accompanying pamphlet. By it, it will be observed that I am authorized to confer with individuals, societies, corporations, &c., "at home and abroad" upon the subject, and in concert with them to agree upon such general system.

Therefore I have the pleasure of inviting your attention to the subject, and of soliciting such assistance in devising, and such co-operation as may be convenient and proper for giving effect to the undertaking.

Respectfully, &c.,

M. F. Maury

OBSERVATORY,
Washington, 1852.

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Read 1852 Feby 28 at the General Meeting

1851 November 25

A General Meeting of the Society was held in Ironmonger Lane

S.C. Whitbread Esq, in the Chair

A letter was read from Mrs Cobb, Knight addressed to Dr Lee on an extraordinary instance of horizontal refraction, or looming of the land, as seen by her at Hartwell

A letter was read from W. H. Maughan Esq addressed to Dr Black on the extraordinary instance of a triple tide in the river Thames, on the Monday preceding Nov. 19. 1851

The President brought under the notice of the Meeting, the fact of rain falling at the time of a clear sky.

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The secretary gave an oral account of the results of observations taken in the arctic seas, by Sir John Ross and Commander Phillips, in their recent expedition to the search of Sir John Franklin, and he observed that at about the middle of last year, and very shortly after the formation of this Society, Sir J. Ross ~~sailed to the arctic~~ ~~seas in~~ first previous to sailing made application to this Society for instructions as to the class of observations most likely to advance the objects of this Society, and these instructions have been followed as closely as circumstances and instruments permitted. On the Return of the expedition, Capt. Phillips placed in the hands of the Secretary, hourly observations of the thermometer, taken at Cornwallis Island from [illegible] 1, 1850 to April 30. 1851, the results deduced were the monthly mean values in hourly, daily and monthly groups, together with the extremes of temperature in the different periods. These results were laid down in diagrams, ~~and~~ the points of interest being dwelt upon, the secretary remarked that in the present case he did not fear outstripping the feelings of the members, the field of observation being new and the temperatures recorded far below the average of those usually submitted for discussion, he also observed that by such observations can establish any thing like a law was not to be expected, but at the same time they may when carefully discussed indicate the announcement of laws the ultimate confirmation of which from subsequent observations may not improbably be accomplished by this Society

1852 March 2

The council met at 5 Cavendish Square

Persons Present

S. C. Whitbread
Dr Lee
J. Glaisher
G. Leach
J. Rutter
Rev. J. B. Reade
Rev. C. Lowndes
H. Perigal
W. R. Dymond

The secretary proposed ~~Henry~~ Benjamin Barrow of Clifton House, Ryde, Isle of Wight, as a member, seconded by Rev. J. B. Reade, and he was elected unanimously

~~[illegible]~~

The subject of Lieut Maury's communication was then taken into consideration, and it was resolved that a copy of the adjoining letter should be sent to him

Saml. Chas. Whitbread
~~Chairman~~
President

13 Dartmouth Terrace, Lewisham, Kent
1852 February 28

My dear Sir

I have the honor to acknowledge the receipt of your communication relative to the co-operation of the British Meteorological Society, respecting a system of universal observations, accompanied by a printed pamphlet containing some correspondence which has already passed relative to this subject, and which I have brought under the notice of the Council of the Society.

The views set forth in this pamphlet, particularly those in your letter dated Washington Nov. 21. 1851, are the views which have long been entertained by myself, and acted upon by the British Meteorological Society, as far as possible.

The form adopted by the Corps of Engineers is a modification, and a modification only, of the form used by the Meteorological Society, supplied by myself to Captain James, and so altered to suit the convenience of the Engineer Officers, and is not that which is desirable for general adoption.

The instructions drawn up by Captain James are good so far as he has followed the information I gave him and are erroneous very frequently in parts were the information was not there furnished to him; ~~[illegible]~~ ~~further~~ I [illegible] ~~[illegible] [illegible]~~

As the instructions drawn up by Capt. James seem to have the recommendation of the Government of Great Britain for general adoption, I beg distinctly

See [illegible] this Form for the [illegible] Cards
approved of by [illegible] [illegible] Report Dec 31. 1851

Lieut Maury
Director of the National Observatory at Washington America
Posted March 4

to state that they do not meet the approbation of the Council of the British Meteorological Society, and certainly ~~would~~ will not be followed by Meteorologists in England

Respecting the Instruments, the barometers are of the form adopted by this Society; they have also been compared by myself for determination of their index errors.

I consider all the thermometers adopted by the Ordnance ~~as~~ as having (much too large bulbs), and particularly those intended for Hygrometrical Observations; they are in fact totally unsuited to the work intended, and no Hygrometrical results deduced from them, will be of any value

The proposed position of these instruments in use I consider objectionable, as I repeatedly mentioned to Capt. James at the time he was engaged in drawing up these instructions. In my opinion the bulbs of all thermometers should be so placed that they are completely open to the air ~~from~~ on all sides

On page 5 of the Instructions the stand for Thermometers there shown is proposed for such an arrangement, the stand being furnished with a tail-piece to prevent the rays from either the setting or rising sun falling upon the bulbs. In addition to the stand certainly not requiring of the thermometers are to be fixed on the face of the stand as recommended

Perhaps I may be permitted to point out some of the great defects, in the opinion of the Council of the Society, in the Ordnance Instructions

On page 3. All the thermometers mentioned, and I believe intended to be furnished, are self-registering maximum and minimum thermometers, on Rutherford's construction, a form of instrument frequently deranged, and at all times variable in its readings, as the index-errors of such instruments are found to vary from day to day

On page 6 The horizontal position of the thermometers, even those used for extremes of temperatures, is objectionable, and will be the fruitful source of intermittent ~~of~~ the plunging of the steel index into the mercury. These instruments should be so inclined that gravity assists somewhat the movement of the steel, at the same time that the stickage of the index to the tube, is more than gravity can overcome

On page 7. The position of the sun thermometer is not defined; it should be absolutely defined, as the readings of such a thermometer will vary with every change of position; also it should be so placed that lateral air should not strike the bulbs

On page 7. The position of the grass thermometer is not defined, as the thermometer should be so placed, either by resting on props or otherwise, that its bulb is not covered by even a single blade of grass

On page 9. The Index-errors of thermometers cannot in the hands of unskilled persons, be determined as there directed, the difficulty of mixing water at different temperatures ~~would~~ is too great, to be the means of determining index-errors thus

On page 10. The remarks upon the temperature of the dew point are not applicable, inasmuch as Daniell's Hygrometer, almost always fails when the difference between the temperatures of air and the dew-point is large, as in the case cited, and this is easily accounted for; at such times if the ether be dropped slowly on the white bulb, so that the ~~temperature~~ of the different layers of ether in the other bulb

be nearly alike, and of the same temperature as that of the external place on which the dew is deposited, so long a time is necessary that both the temperature and humidity of the whole space included between the two bulbs are changed. On the other hand if the aether be turned so quickly, then the different layers of aether in the other bulb will be of different temperatures and all different from that of the bulb on which the dew appears. My experience, which is more than any other person in England, leads me to place at such times more confidence in the dry & wet-bulb results than in those from Daniell's Hygrometer.

In page 11. It is stated that a dry bulb thermometer whirled round by a string will not alter, but that a wet-bulb thermometer will be depressed 2° or 3°. Although I had tried every experiment possible, certain it is I never obtained this result. The result of all my experiments is, that it is far better to place thermometers that air can flow against them on all sides, power being given to the observer to give a quick circular motion to the thermometer stand — so that the observer if suspecting an erroneous reading, can shortly assure himself of its correctness.

The meteorological observers of Great Britain adopt those hours which are most convenient to themselves; some take one, others two, and some four or more observations daily, and these are converted into mean values by the ~~correction~~ application of corrections for diurnal range, according to the time or times of the observations.

So far as American observations have reached me they are also made at different times, but no true mean values have been formed; it is necessary to this end that hourly or bi-hourly observations should be taken at different places, separated by 300 or 400 miles; if this were done then all results would be rendered comparable and useful

During the past year, as a juror at the Great Exhibition, I was brought in contact with all the Exhibitors of Philosophical Instruments from the United States, and I urged upon them the co-operation of America and England upon an uniform system of observations, and their commencing of observations at sea.

The object of the British Meteorological Society, is if possible to belt the Earth with such observations; to deduce results, and from their combination to connect facts and their relations, and I have drawn up this letter at the request of ~~[illegible]~~ the President and Council and am desired to express ~~[illegible]~~ their earnest wish to co-operate with you

I have the honor to be Sir
Your very faithful Servant James Glaisher
Secretary

1852 March 23

The Council met at 6 o'clock at the Society's rooms 5 Cavendish Square

Present
S. C. Whitbread Esq. President
Dr Lee
J Glaisher
J. Leech Esq
H. Perigal Esq
W. Rutter Esq
W. R. Bymond Esq

The minutes of the last meeting were read and confirmed,

The Secretary stated that some ~~correspondence~~ had passed between himself and Mr Ambrose Clarke, of South Kilworth, and that in consequence he had seen him, but found him to be totally unsuited to perform the duties required of an Assistant Secretary

An application was then read from Mr W. Richardson for the situation of Assistant Secretary, and who had been seen by the Secretary, who thought him fitted for the duties and it was resolved that he be received one month upon trial

Letters of resignation were then read from
F. Martin Esq. of Reigate
J. H. Belville Esq of Greenwich,
and which were accepted.

It was resolved that 3 copies of the forms for the admission of Members be sent to

every member, and the Secretary was ordered to do so

An order was signed for the payment of £4.7 for one month's service of Mr Gordon to January 31, 1852

And an order was signed to pay the Secretary £2„5 for postage of notices, and deficiently paid letters; carriage of Parcels sent by the Society, or sent to the Society, and sundry small expenses, incurred between 1851 January 1, and March 31. 1852

On the motion of Dr. Lee seconded by Mr Glaisher Lieut Maury Director of the National Observatory of the United States was elected an Honorary Member

Saml. Chas. Whitbread
President

1852 March 23, at 7h p.m.

The Society met at 5 Cavendish Square, and the following papers were read

S. C. Whitbread Esq. President in the Chair

On the Aurorae and Meteors observed at Darlington by John Graham Esq. M.B.M.Socy. during the year 1851

On the meteors observed by Charles Bulard Esq. M.B.M.S during the years 1828, 1829, 1830 and 1831

On the Meteors observed at Stone during the months of August, Sept, Oct, Nov. and Dec, 1851, by Rev. J. B. Reade and other members of the Society

On the Fall of rain in the English Lake and Mountain districts in the year 1851 by John Fletcher Miller Esq. M.B.M.S

Twelve papers containing the meteorological facts observed at Toronto in the year 1851

A Meteorological Register kept at Hull during the year 1851 by William Lawton Esq.

Meteorological Observations taken at Jersey during the year 1851 by W. W. Childers Esq.

Results of Meteorological Observations taken at Falmouth during the year 1851 by G. Barham

Meteorological Observations taken at Bombay during the Month of January 1852 by Lieut Ferguson Director of the Observatory, and M.B.M.S.

Results of a Meteorological Register for the year 1851 by John Drew Esq. M.B.M.S

~~At the Meeting was read~~ The commencement of a paper was read by Dr Moffatt on "Medical & Agricultural Meteorology and Atmospheric Ozone" as based upon observations made at Hawarden, near Chester during the years 1850 and 1851. As an element essential to be considered in the progress of these investigations, the physical geography of the locality is carefully described the chief characteristics of which according to Dr Moffatt consists in the different physical conformation of the surrounding district in an area of 10 miles radius round Hawarden, itself a village situated on a sandy eminence 460 feet above the level of the sea, that situated towards the East being a rich alluvial soil highly cultivated, and that to the West a mining district and comparatively barren. To the configuration and vicinity of the adjacent hills is referred the existing cause of the preponderance of winds from the SSE and SSW quarters over those blowing due S. The Geological formation of the land is described as consisting chiefly of new red-sandstone in the Agricultural and a mixture of Carboniferous lime stone to the W or mining district. The results of two years observations in this locality give a mean height of the Barometer of 29.in 670; a mean temperature of 48°.3. Mean amount of humidity .842 mean amount of rain 23.in 6 and the prevalent winds from the SSE. The longevity of the inhabitants is described by the author as remarkable 75 and 85 years being a common period of life to which the inhabitants of Hawarden & its neighbourhood attain. After speaking of the discovery of ozone by Prof. Schonbein its power of decomposing the Iodine; and the consequent test of atmospheric ozone formed by a solution of starch with the iodine, Dr Moffatt proceeds to describe the mode of preparing the test papers as used by him in his observations, consisting of one drachm of starch, dissolved in an ounce of water just boiling, to which when cold is added

10 Grains of the Iodide of Potassium are well mixed; strips of white paper being smeared over with the paste and dried before the fire. Tests so prepared should be protected from light and air. The amount of atmospheric ozone being measured by the degree of coloration produced upon the paper in a given time, according to Dr. Moffatt's own plan of registration which he fully details

George Leach
Chairman
26th April 1852

1852 April 27

The Council met at 6 o'clock at 5 Cavendish Square

Present
S. C. Whitbread Esq
Rev. J. B. Reade
Rev. C. Lowndes
Henry Pollock Esq
Henry Perigal
G. Leach Esq
S. C. Homersham Esq

The Minutes of the last Meeting were read and confirmed

A letter was read from Robert Symonds Esq, resigning membership of this Society, dated 12 April 1852

A letter was read from M. F. Maury Director of the National Observatory Washington dated April 1. 1852, thanking the Officers &c of this Society for his election as an honorary Member

A letter was also read from Lieut. M. F. Maury Director of the National Observatory at Washington in answer to the letter recently addressed to him by the Secretary, relative to a Conference which he proposes should be held at Paris. The letter is dated Ap 1. 1852.

Some discussion followed upon the subject of this letter, and the Secretary was requested to see Sir F Beaufort and to ascertain how far it was likely the Navy Officers would unite in the scheme

Some discussion then followed relative to the annual report, and it was resolved to have an extra Meeting of Council this day fortnight, the Secretary being charged with preparing the draft of a report.

Saml. Chas. Whitbread
President

1852 April 27

The Society met at 5 Cavendish Square, at 7 o'clock.
George Leach Esq. in the Chair

The Minutes of the last Meeting were read and confirmed

The following papers were read –

A communication from W. Bond Paul Esq, M.B. [illegible], ~~was read~~ relative to an Earthquake felt by him at Langport in Somersetshire, at a quarter past 6 o'clock a.m., on April 3

A communication was read from Hale Wortham Esq on the phenomena seen in the heavens April 9, 10, 11 and 12 of April 1852 ~~as seen~~ by him at Royston.

Various monthly series of Observations were announced,

The reading of Dr. Moffatt's paper on Medical and agricultural Meteorology, and atmospheric ozone, was then resumed and completed; the following is an abstract of the remainder of the paper –

By means of a series of very elaborate tables an apparent connexion is discoverable between the first appearance, increase, decrease and disappearance of Atmospheric Ozone with the decrease and increase of the readings of the Barometer and Thermometer, and the state of the weather generally also the occurrence of electric disturbances and their apparent relation to the same meteorological conditions as ozone; also that prevalent diseases form groups corresponding with certain meteorological conditions, one column in each of these tables is devoted to the investigation of the potatoe disease, as regards the number of fields affected and the days on which such occurred. A separate table shews the relation existing between individual diseases and the conditions of the atmosphere. In the formation of these tables Dr Moffatt has paid strict attention to all to all the lesser fluctuations of the Barometer and Thermometer being convinced that there exists a great necessity for so doing from the slightest variation in the height of the Barometer reading being followed by a change in the direction of the wind and the appearance and increase or decrease and disappearance of ozone; ozone Dr Moffatt considers to be intimately connected with falls of rain, hail, snow and sleet and dynamic electricity but that it is not necessary for any of these to occur for ozone to be produced; for if the barometer reading increases, and a current of air sets in from the northern points of the compass after or with any of these ozone will disappear; but if the barometer reading decreases and the wind comes from southward it appears to increase in proportion to the fall of the Barometer and the force of the current.

The fall of temperature accompanying ozone he thinks is possibly attributable to the wind becoming north during the continuation of an ozone period or at its termination. An interesting series of diagrams is introduced to shew the percentage of the total number of diseases and deaths which occurred in the years 1850 and 1851 and consist of representations of a compass card, on the outer circle of which are marked the cardinal and intermediate points, and on the inner circle the number of diseases and deaths under the point from which the wind came at the time they occurred. The result given by these diagrams would appear to indicate that certain diseases prevail with certain directions of the wind. According to the observations contained in this paper the potatoe and other diseases occur at the same time and appear to be produced by the same causes: as ozone is invariably attendant upon these causes Dr Moffatt was induced to try its effects upon vegetable life by means of actual experiment. In August 1851 two plants under a glass case so rested upon slips of wood as to permit the air freely to pass, and an ozone test paper fixed in the crown of each glass. A watch glass containing a piece of phosphorus was placed upon the soil in the pot which contained a Longi flora. In the course of 10 hours the test paper became tinged an the interior of the glass was bedewed with moisture. At noon on the following day or 18 hours from the first action of the phosphorus, dew drops were perceived to hang from the points of the leaves, the test paper in the other glass did not shew the slightest change. In two days the leaves began to assume a brownish tinge and became darker untill nine days after the commencement of the experiment the branches began to droop

and on the tenth the whole plant was completely withered; the ozone paper was not deeply tinged less so than was found frequently to be the case in 24 hours in common atmospheric air. The other plant continued healthy. The experiment was repeated upon two geraniums with the same result; that which was exposed to the influence of ozone although the stronger of the two plants perished in seven days whilst the other remained possessed of its vitality and continued to blossom. The principal conclusion arrived at by Dr Moffatt from the observations contained in his paper are that the greatest number of diseases occur with the decrease of the barometer and temperature, and with appearance and increase of ozone: that certain diseases would appear peculiar to particular points of the compass: that epilepsy and sudden death occur most frequently at the commencement of an ozone period and with snow and hail storms: that the potatoe disease accompanies the diseases in the animal kingdom and that atmospheric ozone is injurious not only to animal but to vegetable life.

Jam: Cha: Whitehead
President

1852 May 18

The Council met at 5 Cavendish Square at ½ past 4 o'clock

Present
S. C. Whitbread Esq
Dr. Lee
George Leach Esq
Henry Pollock Esq
Henry Perigal Esq
Rev. J. B. Reade
J. Rutter Esq
J. Glaisher Esq.

The Minutes of the last meeting were read and confirmed

The subject matter of the annual report was fully taken into consideration

The following gentlemen were appointed Auditors of the Treasurer's account

Henry Pollock Esq
David Stott Esq
Rev. J. Vile

The alterations of the council according to the Institutes were then taken into consideration, and it was resolved that Luke Howard, & Hastings Russell, be suggested as Member of Council, and that Sir Frederick Pollock and Sir David Brewster be suggested as Vice Presidents and that A. Beardmore and C. Brooke Esq be added to the council - in the room of Col. Blackwood, Prof Challis, Rev. S. King, and Dr. Shelton, who have been on two years.

John Lee
Chairman.

1852 May 25, at 4 o'clock

A general meeting was held at 5 Cavendish Square, and at 5 o'clock there not being many members present the meeting was adjourned till 7 o'clock, at the suggestion of the President.

At 7 o'clock the meeting again met,
S. C. ~~Pr...~~ Whitbread Esq in the Chair

The President read the report of the Council, the Treasurer read his report and that of the Librarian, ~~when~~ after which ~~and~~ the meeting proceeded to ballot for officers, and the following were elected

President
S. C. Whitbread

Vice Presidents
General Sir T. Brisbane
Lord R. Grosvenor
Sir Frederick Pollock
Sir David Brewster

Treasurer
Dr. Lee

Secretaries
J. Glaisher
J. Leach

Foreign Secretary
W. P. Hymond Esq

Librarian
W. Rutter Esq

Council
H. Russell Esq
J. Drew Esq
S. C. Henderson
E. J. Lowe
Rev. C. Lowndes
R. Pengel
H. Pollock
Rev. J. B. Reade
Prof. J. Stevelly
L. Howard
A. Bernmore
C. Brooke Esq

On the motion of Capt. Clark R. A., and seconded by Rev. H. Benton it was resolved to print the annual report and to circulate it among the members.

To be copied

Meteorological. May 25. S.C. Whitbread Esq. President in the Chair. A paper was read on the "Climate of Guernsey" by Dr. Elliott Hoskins, F.R.S. In commencement the Author observes that the correlation between Meteorological, Medical and Agricultural Science is no longer the recognition of an abstract theory, but forms the subject of investigations now receiving some degree of attention, though as yet however proportionate to the full extent of their practical importance: ~~that~~ The anticipations entertained that uniformity of plan steadily adhered to for a few years would furnish the most perfect data for its own correction has been fully realised, and Mr. Glaisher's extensive ~~voluminous~~ computations which contributed ~~the~~ in an eminent degree to ~~the~~ advance the science of Meteorology in its progress towards maturity have together with his tables on diurnal range re-printed from the Phil. Trans. at the suggestion of the British Meteorological Society afforded facilities for reducing a few observations made at the most convenient hours of the day and night to mean monthly values, and besides rendering much otherwise useless labour valuable has converted ~~[illegible]~~ many indifferent observing amateurs into zealous and efficient co-operators. The results published in the Reg. Gen. Qr. Report, under Mr. Glaisher's superintendance and deduced from observations spread over an extent of country exceeding 7 degrees of latitude, and nearly the same number of degrees of longitude form an accumulating fund from which accurate information relative to the more important elements of British Climate is becoming

Generally diffused throughout the civilized world: nevertheless labourers in the field of Meteorology are yet too few and the Salubrity and Sanitary Capabilities of our inland ~~spas~~ vales and sheltered bays is both desirable and important

As each locality possesses peculiarities in respect to climate, each may in turn be rendered available when its characteristics are promulgated, for the various phases of disease each requiring ~~require~~ the absence or presence of some special element or group of elements: the distribution of heat and cold over months and seasons: the extent of mean daily range, and more than all the amount and diffusion of Aqueous vapour in the Atmosphere - Hygrometric Observations are most particularly important in distinguishing the character of different localities. The deficiency of Hygrometric Observations, continues Dr Hoskins, adds greatly to the difficult task of directing invalids to the selection of the climate best suited to their pathological wants

The British Meteorological Society it is to be anticipated will supply this existing ~~want~~ deficiency: The principal objects of the Society being the collection of accurate Meteorological observations: the publication of tables: the reduction of observations to useful results & the distribution of Meteorological papers so as to facilitate comparison between various climates home as well as foreign

In the Year 1842. Dr. Hoskins commenced regular meteorological observations which have been continued up to the present time and latterly published in the Reg. Gen. Qr. Reports.

Of the instruments in use. The Barometer employed was one of Newmans, which in the year 1851 was replaced by one of Barrows, selected and compared by Mr. Glaisher. The details and situation of these and other instruments used by Dr. Hoskins are carefully described.

These results have been employed in the construction of a series of tables containing within a lesser bulk of information for practical purposes, the greater part of Dr. Hoskins paper being offered as a commentary upon the information contained in them.

Following a recapitulation of the annual results exhibited by each table. The following particulars are specially dwelt upon as regarding the distribution of heat & cold; that February is the coldest month in the year; July the hottest & August slightly lower in temperature; the uniformity between these two last months prolongs the summer and determines the maturation of (fruits) and (grain); In May, June and July the mean temperature of Guernsey is lower than that of Green[wich] but higher during the remainder of the year; The equability of Autumn and its duration constitutes a peculiar feature in the climate of Guernsey extending as it does to the middle of December, and thus abridging the duration of winter; It is also shown that the mean temperature of the air is not dependant upon the heat of the day but upon the warmth of the nights in which respect the climate of Guernsey resembles closely that of Penzance.

Following a recapitulation of the annual results exhibited by each table the leading elements of the climate are specially considered, [illegible]

During 9 years of observations readings of the

(3)

The alleviation of the winters cold and the lowering of the the summer's heat in places on the coast are thus accounted for by Mr. Glaisher:– In winter when the air is colder than the water it takes a portion of heat from the surface of the sea, which, cooled by being thus brought in contact with the cold air, sinks and is replaced by warmer portions from beneath the which heated air rises and flows over the land.– In summer when the air is warmer than the water, much heat becomes latent by the quick evaporation of the water. The water changed into vapour and mixed with the air as an elastic fluid, passes to land, and takes a place in the total pressure of the Atmosphere, and is of the

Mr. Glaisher. The details and situation of these and other instruments ~~used by Dr. Hoskins~~ used by Dr. Hoskins ~~[illegible]~~ are carefully described.

These results have been employed in the construction of a series of tables ~~upon~~ containing within itself a ~~vast~~ bulk of information for practical purposes; ~~the remainder of Dr. Hoskins paper~~ the greater part of Dr. Hoskins paper being offered as a commentary upon the information contained in them.

Following a recapitulation of the annual results exhibited by each table ~~After the examination of the general results exhibited~~ the following particulars are specially dwelt upon ~~by each table Dr. Hoskins remarks~~ Regarding the distribution of heat & cold ~~[illegible] apparent~~ that February is the coldest month in the year; July the hottest & August slightly lower in temperature & the uniformity between these two last months prolongs the summer and determines the maturation of fruit and grain: In May, June and July the mean temperature of Guernsey is lower than that of Green[wich] but higher during the remainder of the year: The equability of Autumn and its duration constitutes a peculiar feature in the climate of Guernsey extending as it does to the middle of December; and thus abridging the duration of winter: It is also shown that the ~~winter~~ mean temperature of the air is not dependent upon the heat of the day but upon the warmth of the nights in which respect the climate of Guernsey resembles closely that of Penzance.

During 9 years of observations reading of the

(3)

The alleviation of the winter's cold and the lowering of the the summer's heat in places on the coast are thus accounted for by Mr. Glaisher: In winter when the air is colder than the water it takes a portion of heat from the surface of the sea, which, cooled by being thus brought in contact with the cold air, sinks and is replaced by warmer portions from beneath which heated air rises and flows over the land. In summer when the air is warmer than the water, much heat becomes latent by the quick evaporation of the water. The water changed into vapour and mixed with the air as an elastic fluid, passes ~~[illegible]~~ land, and takes a share in the total pressure of the atmosphere, and is of the utmost importance in reference to barometric variations

Following a recapitulation of the annual results exhibited by each table the leading elements of the climate are specially considered, ~~[illegible]~~ ~~temperature~~ ~~[illegible]~~

thermometer above 75° occurred sixty five times, forty two of which took place during the hot summers of 1846 and 1847: once only on July 16. 1847 it attained the unusual height of 85°: The number of readings at and below 32° in the same period amounted to no more than ~~sixty~~ fifty. 35 of which occurred in the years 1843, 1844 and 1845: on Jan. 29. 1848 the temperature was as low as 24°.5: these examples are however rare, ~~owing to the high night temperatures~~, ~~and to the~~ Hoar frost is of rare occurrence owing to the high night temperatures and to the constant presence of a breeze more or less fresh: it is chiefly confined to the months of January and February

The comparative dryness of the air as shown by the Tables Dr. Hopkins considers may be attributed to the heavy rains and dews, and the constant interchange of currents of air between the land and sea, and the action of the sun's rays upon the surface of the island which declines steadily from west to East: ~~Sea haze is far from~~ ~~common~~ Sea haze is not of rare occurrence in Spring and Autumn.

The dew point increases from its minimum in February ~~by~~ ~~regular~~ steps to its maximum in July ~~The predominant direction of the winds is from the South~~ ~~westerly winds predominate~~ ~~those from the West~~ ~~occur more frequently than~~; ~~and the westerly~~ ~~somewhat more than the Easterly~~; after a minute analysis of the course and direction of the wind at all seasons; Dr. Hopkins calls attention to the fact indicated in the Tables; that one quarter of the years amount of rain is collected in two months, those of January and October. The mean annual fall of rain being 35.5 inches ~~The~~ ~~Of the~~ ~~flowering~~

~~Easterly~~ The winds in order of predominance ~~are~~ ~~South~~ ~~West, and~~ ~~East.~~ prevail from the North West and East. The predominance of the two last being almost Equal.

Of the blossoming of trees ~~and~~ and plants Dr. Hopkins ~~relates~~ remarks that the Common Lilac comes into blossom with the horse chestnut between Ap. 15 and 20; at which time the apple and pear tree ~~the~~ are in full bloom, and the

(4)

fruit
of the peach, apricot, nectarine and plum is permanent: the frequency with which the Aloe flowers: the vast size of the hydrangea, ~~and~~ the profusion of its blossoms: the spread and vigour of ~~its blossoms~~ the myrtle ~~and~~ the Banksia Rose, and Scarlet Geranium, and more than all the luxuriance of the Camelia japonica are evidences of the mildness of the winter season: an idea of the size to which these can attain may be gathered from ~~the dimensions~~ ~~[illegible]~~ the following dimensions ~~of the whole~~ given: the lateral extent of the double white Camelia being 25 feet 6 in. and the girth of its stem 2 feet 6 inches.

Of diseases prevalent in the island ~~Dr. Hopkins~~ ~~describes~~ the type of fever most frequently occurring is the re-mittent, ~~[illegible]~~ which is (for the most part) confined chiefly to the low part of the town and along the coast. Ague which half a century ago was prevalent in certain districts has, according to Dr. Hopkins, entirely disappeared owing to the exclusion by embankment of an arm of the sea which frequently overflowed ~~its~~ its banks: The diseases incidental to childhood are in general mild: Pulmonary consumption does not exceed the average of other places and Asthma in all its varieties is rare

On the motion of Dr. Lee, seconded by C. Brooke Esq, it was resolved that the best thanks of this meeting be given to Dr. Hopkins, for his paper, ~~seconded by C. Brooke Esq~~

Saml. Chas. Whitbread
President

(5)

In commencement the Author observes that the Correlation between Meteorological, Medical, and Agricultural science, ~~the influence of climate upon cultivation~~ is no longer the tacit recognition of an abstract theory but forms the subject of investigations ~~[illegible]~~ which has received some degree of attention ~~[illegible]~~ not however ~~[illegible]~~ as yet in proportion to the full extent of their practical importance ~~[illegible]~~

At a Meeting of the British Meteorological Society May 25 was read a paper on the "Climate of Guernsey" by Dr Elliott Hoskins

1852 June 24

The Council met at the Society room at 5 Cavendish Square

Present

The President
J. Cook
J. Glaisher
H. Perigal
W. Symonds
H. Pollock

An order was signed for the Treasurer to pay Mr W. Richardson the sum of 12 Pounds for calculations &c to the end of June

The Secretary stated that J. G. Grosart of Edinburgh had offered the following Meteorological Observations taken in Nova Scotia to the Society for 2£. 10s

The Observations consist of

Direction of the wind twice a day with remarks on the weather, from 1776 January to December 1785

From 1786 January the same with the addition of 3 readings of a Thermometer daily, which continued till May 1787;

From June 1787 to December 1792, Direction of the wind twice a day, with remarks.

From January 1793 to December 1794 the same with the addition of 4 Observations daily

The series is continuous, therefore for 18 years, but includes Thermometrical Observations for 3 years and 5 Months only

All neatly written out

It was resolved that these papers could not be purchased without first seeing them

The secretary read a letter he had recd. from Capt. James relative to the discussion upon the union of Ordnance with English Stations

The secretary stated that he had written to Dr. Watkins, but that he had not received any reply, relative to furnishing 200 or 250 Copies of his paper on the Climate of Guernsey, the council desired the secretary to write to him again and to make arrangements with Dr. Watkins for 250 Copies of his paper

It was resolved to have 750 Copies of the annual report struck off

A discussion took place relative to the Meeting of Council on August 24, the President stated that he should be unable to attend; it was understood that the Treasurer would also be unable to attend, and it seemed very doubtful whether a quorum of Officers would be in London at the time, the Council therefore ordered the Secretary not to summon a Meeting on that day unless something needing their presence should take place

J. B. Reade
Chairman.

1852 June 24

A general Meeting was held at the Society's rooms S. C. Whitbread, President, in the Chair, at the beginning of the Meeting, and George Leach Esq afterwards

The Minutes of the last Meeting were read and confirmed

A paper was read from William Bond Paul Esq giving the particulars of an Earthquake on Saturday April 3, felt by him at Langport Somerset; at Axbridge; at Usk in Monmouthshire; at Shepton Mallet; at Kingsdown and other places

A discussion took place following the reading of this paper, and the thanks of the meeting were voted to Mr Paul

A paper was read by the Secretary on the Meteorology of England in the year 1848 by which he discussed the Observations, deduced formulae by which the goodness of the Instruments used could be tested, &c

The thanks of the meeting were given to the Secretary for this paper

A Ballot was taken for

J. Taylor
Capt. Clark
W. Allcard
Capt Strange

and these gentlemen were duly elected

M. Petit was also Balloted for and duly elected an Honorary Member

John Lee.
Chairman

1852 October 26

The Council met at the Society's rooms at 5 Cavendish Square, at 5 o clock

Present

Rev. J. B. Reade in the Chair
Rev. C. Lowndes
Henry Pollock
A. Beardmore
H. ~~Pengal~~ Glaisher [illegible]

The Minutes of the last meeting were read and confirmed

The Secretary referred to correspondence which had passed between A. B. Grosart Esq relative to the M.S.S. containing Meteorological observations which had been taken at Nova Scotia, Halifax between the years 1776 and 1794, and which had been sent for the Society's inspection

It was resolved not to purchase these M.S.S and the Secretary was directed to return them to Mr Grosart, and to thank him for the offer made to the Society

The Secretary stated that by some misunderstanding the number of copies of the Council report ordered by the Council ~~for~~ viz 750 was not struck off, and that 155 only had been forwarded to him by Mr Pratter; and that before Mr Pratter received Mr Glaisher's letter on this the type was broken up, and that since then he had not heard any particulars. No determination was come to respecting the ~~add~~ additional copies, the subject being left to the President, Treasurer &c being present.

An order was signed directing the Treasurer to pay to Rev W. Richardson 13£, for calculations performed by him ending September 30, 1852

An order was signed directing the Treasurer to pay 3 pounds to Phillips to the Housekeeper, to Midsummer Day last.

The Secretary read a letter from J. Watkins stating that 250 copies of the Paper on the Climate of Germany would be 2. 6, ~~and the~~ Secretary stated that he had received 250 copies

It was resolved that £2. 6 be paid and an order was signed directing the Treasurer to pay this

An order was signed to pay £1 for 200 copies

of Mr Glaisher's paper on the Meteors of Aug 12

The Secretary was directed to forward one copy of this paper, and one copy of Dr Stokes paper to all the members

Some dis-cussion took place relative to the days of Meeting in the year 1853, but the matter was postponed till the ~~[illegible]~~ President, Treasurer & other members of the Council were present

Some discussion took place relative to reprinting the Rules & Regulations, they being out of print, this matter was also postponed

A letter was read from B. Barrow Esq of Ryde, suggesting the publication of a Meteorological journal Monthly, to be called the Meteorologist, and which might be the organ of our proceedings

John Lee.
Chairman.

1852 November 23

The Council met at 5 Cavendish Square at ½ past 5 o clock

Present

Dr. Lee in the Chair
Rev. J. B. Reade
J. Leach Esq
A. Beardmore Esq
J. Glaisher Esq
H. Pengel

The minutes of the last meeting were read and confirmed

The Secretary stated that he had forwarded one copy of Dr. Workers paper, one copy of his own paper, and one copy of the Quarterly Report to all Members of the Society

Some discussion then followed upon reprinting the Rules and Regulations again and it was resolved that 500 copies be struck off.

Experience having shown that article IX, at the General Meeting in May, the hour of 4 o, clock was so inconvenient that it was not possible to collect a meeting at that time and after a long discussion it was thought better to print article IX without changing the hour, but that such would be printed year by year on the cards of Meetings

It was resolved to print 750 copies of the Council report,

The following were the days of Meeting resolved upon in the year 1853
Ordinary Meetings Jan, Feb, Mar, Apr, and Nov; Gen. Meeting May
Meetings of Council, Jan. Feb. Mar, Apr. May Oct, and Nov.

Saml. Chas. Whitbread President

Capt. H. Clark R.A

1852 November 23

The Society met at 5 Cavendish Square at 7 o clock

The Minutes of the last Meeting were read and confirmed

The following Gentlemen were balloted for and duly Elected

Captain Rushout M. P.
W. Sunnerley Esq
Col. Sir W. Reid, Governor of Malta.
A. Neild Esq. Manchester
W. C. Bruder Esq, Clifton

Several communications were read relating to the Meteor of Aug 12, 1852, ; of that of Oct 5, 1852; Oct 12, , Sept, 2, and several series of observation upon these bodies

Several letters were read addressed to Mr Glaisher relating to a Meteorolite stated to have fallen in Hampshire in the month of August 1852

Many letters and communications were read respecting the Earth quake of Nov 9 - 1852

A letter was read from Peter Legh Esq, upon the Meteors, and accounting for them by the position of the heavenly bodies,

Jam. Chas. Whitbread
President

Will. H. Clark. R.S

1853 January 25

The Council met at ½ past 5 at the Society's room 5 Cavendish Square

Present

J. C. Whitbread Esq.
J. Lee
Revd J. B. Reade
Revd E. Lowndes
A. Brandram
W. Perigal
W. Drummond
W. Pollock
J. Glaisher

The Minutes of the last meeting were read and confirmed

An order was signed to pay Mr W. Richards the sum of 13 £ for his services to the end of the year 1852

An order to pay 3. 10 to the Housekeeper for 6 Months service ending Decr 31, 1852

A bill of 26. 1 from Mr Clark the Stationer for the year 1852 was signed by the President, but, at the same time referred to the Treasurer and Secretary for examination

Saml. Chas. Whitbread
President

Wm. H. Clark L.S.

1853 January 25

A meeting of the Society took place at 5 Cavendish Square, at 7h p.m

J. C. Whitbread Esq. in the Chair

The minutes of the last meeting were read and confirmed

A paper was read by Capt. Clark R. A. on the amount of Evaporation from two surfaces of water, each with an area of 9 square feet, the one under cover, and the other open; as well as the fall in [illegible] of rain in the year 1852, at the Royal Arsenal, Woolwich

On the fall of rain in the Month of December by F. F. Miller Esq.

A Communication was read from Robert [illegible] Esq. on the fall of rain at St. Philips in the year 1852, compared with the falls in the same Months in the years 1842, 1843, 1844, 1845, 1850 and 1851, by which it appears that the average fall at St. Philips is 20in. 4, whilst 58.2 inches fell in 1852.

A communication was read from Capt. Childers of Jersey upon the peculiarities of the weather in the 3 preceding Months, Oct. Nov. Dec. 1852

[illegible] H. Clark. R.A

A paper was read (recd. from Dr. Lee) stating that the Swiss [Swiss] papers, that on the 10th Ult: supposed to be 10th (of November) At 6 [illegible] were reckoned from the Observatory [observatory] at Berne &c

A communication [was] was then made by the Secretary on the Meteorology of the past Quarter, and on the fall of rain for the year 1852.

He stated that there was no instance on record of the recent warm weather at this season of the year, that from Octr. 30 to the present time the temp. of every day had been in excess and at times to a large amount;

that the fall of rain in the year 1852 was unusually [unusually] large, amounting [amounting] to 50 in Cornwall [Cornwall] & Devonshire; to 40 inches [40 inches] in the Isle of Wight; to 30 or 40 inches at most Inland places and to 58.2 at Seathwaite & Stonyhurst [Stonyhurst]

Curves [Curves] were exhibited as laid down by the Assistant Secretary [Assistant Secretary], at London, and by J. Tennent Esq. at Dunino in Scotland shewing the daily readings of the barometer for the whole year 1852

A Map [map] was shewn exhibiting the yearly fall of rain at many places.

A communication was read from J. Hartnup Esq. on the wind as recorded during the great gales of Dec. 25 and 27. at Liverpool

Liverpool

Jam: Chas: Whitbread.
President

Capt. H. Clark. R.A.

Tuesday 22 Feb. 1853.

Council met 6 o'clock p.m.

Present. Mr. Whitbread
Dr. Lee.
Mr. Rutter.
Mr. Perigal

Minutes of former meeting read & confirmed

Order made that Treasurer to pay Rent of £20 for the present year.

Moved by Mr. Perigal & Seconded by Dr. Lee that in case of the ~~absence from~~ nonresidence in Great Britain ~~&~~ or Ireland of any member he shall be continued without payment of any subscription - until his Return —

Moved by Dr. Lee & Seconded by Mr. ~~Whitbread~~ Perigal that in consequence of the formation of a Meteorological Society in France by A. Bravais
Ant. D'Abbadie
Dr. Ad. Berigny
Ch. S. C. Deville &
J. Haeghens.

those Gentlemen be elected honorary members of this Society. same carried

Saml. Chas. Whitbread
President

Coll. H. Clark R.A.

Tuesday 22 March 1853.

See next page for Ordinary meeting of 1853 Feb 22

Council Meeting - 6 o'clock p.m.

Present.

Mr. Whitbread. Chairman

Mr. N. Beardmore

Mr. Perigal

Revd. ~~M.~~ J.B. Reade

Revd. ~~H.~~ C. Lowndes.

Mr. Rutter.

Minutes of the former meeting read & confirmed but no further business transacted.

Cott. H. Clark. L.A

Meteorogical Society 22 Feb. 1853.

Ordinary Meeting. 7 o'clock p.m.

S. C. Whitbread – president.

Proceedings of last meeting read by Dr. Lee.

Mr. Glaisher absent. —— same confirmed

& Henry Ancell Esq. each
Lindsay Blyth Esq. of St. Marys College

Paddington each proposed by

Jas. Glaisher for personal knowledge

John Lee

William Rutter

H. Perigal

were elected Members.

of Pembroke Dock South Wales
Dr. Lee read a short paper by Saml. A. Good,

on the Zodiacal Light seen on the 31st. Jan &

7 Feb. 1853

Also a short statement by John Neal of
dated Feb. 15th. 1853 Parhelia or
Biggleswade, on the Mock Suns lately

seen there

Also a Statement by Mr. Hale Wortham of Royston on
the same subject

Proposed by the President & carried that thanks

be sent to the parties communicating

the above statements.

Dr. Lee also read two anonymous communications
on the same subject.

Dr. Lee read a letter from Mr. Bravais to

Mr. Glaisher informing him of the formation of

a Meteorological Society in Paris with printed

particulars as to same.

Dr. Lee also read several recent communications

on the subject of Earthquakes

Ctt. H. Clark. L.S.

Dr. Lee also read a statement received from Mr. Dr. Moffatt on the earthquake of Nov. 9. 1852 & on earthquakes & volcanic eruptions in general

Proposed by the President & carried that the thanks of the meeting be given to Dr. Moffatt. And to Dr. Lee for reading the above.

~~President~~ Present.

Dr. Camps – visitor

Rushout – member (read Mr. R. cards Tinkey) 10 Bolton St Piccadilly

Mr. Ancell } members

Mr. Blyth }

Dr. Hirowton – do. C.

Mr. Peregine – do.

Dr. Lee ——— do.

S. C. Whitbread. do.

W. Rutter do.

Col. W. Clark L.S.

1853 October 25

The Council met this day at ½ after 5 o clock, at 5 Cavendish Square, London

Present

G. Leach Esq. President in the Chair

S. C. Whitbread Esq.

C. Brooke Esq.

H. Ancell Esq.

W. R. Dymond Esq.

A. Beardmore Esq.

H. Pollock Esq.

H. Perigal Esq. Treasurer

Dr. Thomson, and

J. Glaisher, Secretary

The Secretary stated that he had no Minutes of the preceding meeting, in consequence of his illness further than that at the General Meeting on May 24, the following Officers were elected,

President G. Leach Esq.

Vice Presidents. Lord R. Grosvenor
S. C. Whitbread
Sir D. Brewster
Sir F. Pollock

Treasurer. H. Perigal

Secretaries J. Glaisher
Rev. C. Lowndes

Foreign Secretary. W. R. Dymond

Librarian W. Rutter

Council. H. Ancell
C. Brooke
S. C. Homersham
L. Howard
E. J. Lowe
H. Pollock
A. Beardmore
Rev. J. B. Reade
Dr. Thomson
Dr. Lee
Rev. H. Beattie
Capt. H. Clark R.A.

Several letters were read addressed to the Secretary by Dr. Moffatt, with test papers prepared for Ozone by his own method and that of Schonbein, Dr. Moffatt stating that his method was better than that of Schonbein, &c. A discussion followed relative to the adoption of Dr. Moffatt's system, but it appearing to the Council that other foreign bodies may be in the Atmosphere, and which might affect test papers in a similar manner, that it was better to adhere to Schonbein's method as by so doing we should be using the same papers as those in use on the Continent, and also that we should be certain of obtaining results indicative of the presence of that which Schonbeyn has called Ozone, at the same time the Council considered that Dr. Moffatt's mode of preparation had some advantages over those of Schonbein, and the Secretary was ordered to write to Dr. Moffatt recommending him to place himself in correspondence with Schonbein, pointing out to him the assumed advantages of the method followed by him.

A letter was read from the Secretary of the Ethnological Society, relative to the meeting in these rooms on Wednesday Evenings — and enquiring whether such would be inconvenient to this Society.

The times of Meetings for the ensuing Year were arranged as follows:—

Meetings of Council

Mondays January 24
February 28
March 28
April 25
May 23
October 24
November 28

Ordinary Meetings

Mondays – January 24
March 28
May 23
November 28

The Treasurer stated that he was somewhat at a loss to know how to proceed in some cases, where it appeared that no subscription had been paid by Members of 2 or 3 years standing, and that the subscriptions of Members appeared to be fully 200 £ in arrear.

It was arranged that a Committee, consisting of Mr Whitbread, Mr Glaisher and the Treasurer should be formed, and to report upon the state of the arrears, next Meeting.

It was arranged that Mr Whitbread should receive the Dividends upon the sum invested in the Bank.

George Leach

1853

~~1854~~ November 22nd 1853

For Council Minutes
See 2 pages forward

A meeting of the Society was held at their rooms 5 Cavendish Square,

George Leach Esq. in the Chair

Communication were read from John Hippisley Esq. of Stone Easton, Bath, on a remarkable meteor seen there on Nov 14. 1853

A letter was read from W. Pease Esq. of Boconnoc, Lostwithiel relative to a fine Meteor seen there on Sept 2 at 9h p.m, 1853

A letter was read from a correspondent at Bath, describing the appearance of a Meteor seen there Sept 2, at 9h p.m, 1853

A letter was read from E. W. Shackell Esq. of Guildhall Square, Carmarthen, on a Meteor seen there on October 1, 1853

A letter was read from S. Shelesbear Esq on a Meteor seen by him at Holloway, on Sept 11. 1853

A letter was read describing some appearances in the sky on Dec 2, at 1/4 past 5 o'clock as seen by 5 of the Parishioners of the Revd. T. Walters Curate of Alkington near Boscombe, Marlborough Wilts

A letter was read from J. K. Lowell Esq from Melbourne describing three remarkable meteors seen on his voyage from England to Melbourne; this paper was accompanied by a Table of Temperatures as read daily in the air and in the sea, at 10h a.m; 2h p.m and 6h p.m, together with the Lat. & Long. of the

ship at noon, direction of wind, and distance run in the preceding 24 hours

A paper was read by the Secretary, Mr Glaisher on the fall of Rain in the years 1852 and 1853 shewing the average at each place of observation, together with those due to each parallel of Latitude, as deduced from all the Rain Records in his possession, the results being exhibited in Maps and Diagrams.

On the Motion of Dr. Lee, seconded by Dr. Camps, a vote of thanks was given to Mr Glaisher for this paper

A discussion followed upon the mode of graduating thermometers, and a wish was expressed on the part of some visitors that the present scale of Fahrenheit's should be superseded –

The following gentlemen were balloted for and duly elected Members of this Society

C. H. A. Ormerod Esq.
Mr Bevan Storing Master
Mr Gravis Storing Maker
T. J. Bewick Esq. Engineer, Allenhead Northumberland

George Leach
Presd.

1853 November 22

The Council met this day at 6 o'clock, at 5 Cavendish Square, London

Present

G. Leach Esq., in the Chair

S. C. Whitbread

Dr. Thomson

N. Beardmore

Rev. H. Beattie

A. Perigal

Dr. Lee

Rev. J. B. Reade

J. Glaisher

S. C. Homersham

The minutes of the last meeting were read and confirmed. The Secretary read a copy of the letter he had written to Dr. Moffatt as ordered at the last meeting of Council, and Dr. Moffatt's reply, adopting the suggestions of the Council

The Committee appointed at the Last Meeting consisting of Messrs. Whitbread, Perigal and Glaisher, reported that on examining the accounts, it appeared that some Members had not paid any subscription, and that 266 £ is owing to the Society of subscriptions due at the beginning of this year, the Council desired the Committee to take steps to recover this money

Dr. Lee stated that he had invited Dr. Birt to the Meeting this evening, and that it was his intention, with the wish of the Council to bring forward the subject of graduating thermometers, at the end of the ordinary Meeting this evening

Saml. Chas. Whitbread
V.P. Chairman.

1854 January 24

The Council met at 6 o'clock at 5 Cavendish Square

Present

~~[illegible] Esq. in the Chair~~

Samuel Charles Whitbread Esq., in the Chair, till the arrival of

The President who then took the Chair

Present

Rev. J. B. Reade

R. C. Lowndes

Dr. Thomson

N. Beardmore

[illegible]

[illegible]

[illegible]

J. Glaisher

The Minutes of the last meeting were read and confirmed

The Secretary read some correspondence, between Dr. Moffatt and himself, relative to the adoption of either his own or that of Dr. Schonbein's method for investigating the amount of Ozone in the atmosphere, and requesting the Council to publicly state their conviction, respecting the better of the two methods. The meeting approved of the Secretary's answer, declining to pledge the Society to either mode. The subject was not proceeded with further, as up to this time Dr. Thomson was not present, and on his arrival the subject was postponed to next

Meeting

The Committee appointed to collect in all arrears of Subscription reported that they had met several times, and that application had been made to ~~several~~ all Members whose subscriptions were in arrear. The Treasurer reported that the amount of Subscriptions since last meeting exceeded 100£, and he was desired to pay all outstanding bills, subject to the examination and approval of the President and Secretary, He was ordered to pay the rent 20£ for the ensuing year; to pay Taylor's bill, To pay Clerks bill & the housekeeper bill

The finance Committee reported the receipt of the following resignations in consequence of the Treasurer's application for money due

Rev. George Fisher
Joseph Lobb Esq, stating that he ceased subscribing in 1850
John Monk Esq, stating as a reason that his sight is failing, paying the subscription ~~due~~ pending
J. A. Fryer Esq, Holbrook
W. L. Newman Esq, York
Capt. Blackwood R. N., paying up his subscription
J. W. Lamb Esq, Hereford
Respecting the acceptance of these resignations the Council deferred till next Meeting, as the time of the ordinary Meeting approached

The following letters addressed to J. Sidebotham 19 George St Westminster, and
C. Parsey Esq, 11 Bridge St. Westminster
were returned through the dead letter office
A printing Committee consisting of all Members of Council who are resident in or near London — George Leach
President

1854 January 24

The Society met at 5 Cavendish Square at 7 o'clock

George Leach Esq., in the Chair

The Minutes of the last Meeting were read and Confirmed

A paper was read by the Secretary, written by Charles Buland Esq. B. A. Member of this Society on ~~the~~ a Certain Law of the Motion of the Winds

The author discussed about 2000 Obsns of the wind, together with almost continuous Readings of the Barometer, Thermometer, Clouds, and these results were laid down very clearly on a large diagram, and Mr Buland considered that the direction of the wind was affected by the

Difference of declination of the Sun and Moon,

1st, ~~When the effect is different~~
The effect is different at the time of the greatest difference of Declination

(2nd, at the least difference of Declination

3rd When they have the same declination

4th Whether in Conjunction or Opposition

A vote of Thanks was given to Mr Buland for this paper

A paper was then by Mr Glaisher "on the remarkable meteorological particulars of the past quarter, in connexion with the rigorous weather, which ushered in the new year"

After acknowledging his obligations to those Gentlemen who had contributed observations, Mr. Glaisher proceeded to discuss separately each element of investigation. The mean daily Temperature of the Air was shown to have departed most below its average between Lats. 51 and 53°. This band of country was subjected to a continuance of low Temperatures for the long period of 2 months, and it was likewise remarkable for the prevalence of dense Fogs which were of almost daily occurrence during November, at times nearly enveloping the whole country. The rigorous weather which ushered in the present Year was most severely felt over the Midland Counties where the reading of the Thermometer was as low as Zero. In London and its vicinity it fell to 13°. 12°. 16° and 10° on the morning of the 3rd, and it was at the time of these low readings that the heavy fall of Snow took place. The average amount of snow upon the level about London was 12 inches and averaged deepest between Lat.s 51° and 53° than elsewhere; On the Norfolk Coast it was 18 inches deep, but at Whitehaven scarcely an inch fell, and in parts of Northumberland none at all. ~~Part~~ Some parts of Cornwall were exempt, and there was little at the I. of Wight. At the I. of Man it fell to the depth of ~~18~~ 8 inches and drifted to about 10 feet. The greatest drifts recorded were about 15 feet.

In connection with the colder falling beneath ~~the~~ ~~plantations~~ his own observation, Mr. Glaisher remarked that trees in his immediate neighbourhood were sheathed with ice, for some days previous to [illegible] Jan 4, when it began to crack and fall to the ground in fragments bearing the curvature of the branches they had incased. On the severity of the weather mitigating the ground was literally strewn with these fragments. Animals ordinarily exposed on the adjacent Heath perished from

the cold, and two were frozen to death beneath the snow; birds frozen dead from the trees were picked up in the vicinity of the Author's house. Mr Glaisher addressed the Meeting at some length upon the crystalized flakes mingled with the snow which fell during the very severe period at the beginning of the year, and produced for distribution a number of Photographic copies of such as had fallen beneath his own observation. As specimens of various sensitive papers prepared by Mr Glaisher, and an entirely novel application of Photography to the purposes of Meteorology they were ~~[struck out]~~ well received. In conclusion Mr Glaisher detailed at some length various observations made by himself upon the beautiful crystallizations seen in hoar frost upon differently exposed and radiating surfaces.

Mr Beardmore remarked that investigations of this kind were of the highest interest, and spoke very highly of the method of illustrating the abnormal Metl. particulars by diagrams, he compared the fall of rain as shown in those diagrams, in the months of November and December, with those shown at the last Meeting, pointing out the small loss fall at this time, compared with the corresponding fall of last year, he said that he had recently been in Norfolk and could bear evidence to the heavy fall of snow there, that on yesterday it was lying to the depth of 3 & 4 feet, notwithstanding the high temperature of the ground and the wet autumn, as shown by the diagrams; he also said that the fall of rain last year had caused the failure of the wheat crop — on the contrary the little rain fall of the corresponding months of 1853, together with the high price of wheat had caused an unusual breadth of land to be sown, all of which was coming

up well, and he thought it would be doing much good, and calm the fears of many a poor man, if this Society would publish something to this effect —

Mr Whitbread, said that since the 3rd instant he had been over a good part of the County and he could bear evidence of the correctness of many of Mr Fletcher's conclusions, & he moved a vote of thanks to Mr Fletcher, which was seconded by A. Bracy Esq — and carried unanimously

The following gentlemen were balloted for and duly Elected Members of this Society

J. T. Woodhouse Esq C.E.
Lord Dufferin, Clandeboye near Belfast
William Giles Esq — Clifton Bristol
W. M. Dobie M.D. of Llys Derwyn
Denbighshire
W. King Esq M.D. 23 Montpelier Row Brighton
J. Brown Esq Measham, Ashby de la Zouch
Leicestershire

Saml. Chas. Whitbread
Chairman

February
1854 ~~August~~ 28

The Council met at 6¼ o'clock at 6 Cavendish Square

Present

J. Lee Esq. President in the Chair

S. C. Whitbread Esq
W. Pengel Esq.
J. Glaisher Esq
W. O. Symonds Esq
H. Arnold Esq
N. Beardmore Esq
Rev. H. Beattie
Henry Pollock Esq
Rev. J. B. Reade
R. D. Thomson Esq. M.D

The Minutes of the Meeting on January 24 were read and confirmed

The Secretary read the annual report for the year ending 1853 May, and as finally adopted it was ordered to be printed, and circulated among the members as usual.

On the motion of Dr. Thomson, seconded by Mr Arnold 1000 copies were to be struck off, after revision of the proof by the members of the Council

The Secretary reported that the form for collecting observations was out of print, and that he had obtained from Taylor and Francis an estimate to print 2000 copies £7.10s. besides the expense of paper – 4 reams at 1£ per Ream – and also an estimate from Clark, at 10£ printing

The Secretary was desired to obtain other Estimates, and in conjunction with Mr Beardmore to have 1000 or 5000 Copies struck off as soon as possible. The Secretary being desired to re-consider the form, with the direction on the back so as to bring the entire form up to the present state of the Science

A letter was read from J. F. Miller Esq, F.R.S. of Whitehaven the following is an extract.

"I have now 2½ years of excellent Observations on the Monthly Min. temperature at 1000, 2900, and 3100 feet, and monthly Hygrometric obsns. at all the Mountain Stations, taken with the most scrupulous care for the same period

I have also 3 years results on the Rain in the L. District and on the Mountain unpublished. As the experiments were closed in 1853. I intend to combine the whole into one paper. This I shall try to get published by some Scientific body, as I think the results are of great value and they will be still more sought after and referred to in a few years

Could the Meteorological Society manage to print and circulate this paper when ready? I think it could not fail to be well recd. by the members of your Society. These results have been obtained at great expence, which for 3 years past, I have paid almost wholly out of my own pocket"

This proposition was for some time taken into consideration, but it appeared that considering the Cash in the hands of the Treasurer and the liabilities of the Society, that the Council were under the necessity of declining the offer -

The Treasurer said that he had about 60 £ in hand, and he was urged to collect at once the Subscriptions from all the new Members, and still to press for the arrears

The subject of Ozone was again mentioned, but as it was understood that Dr. Moffatt was preparing a paper on the subject for the next meeting the matter was again deferred -

Saml. Chas. Whitbread
Chairman

1854 March 28

The council met at 6 o clock at 5 Cavendish Square

Present

S. C. Whitbread Esq. in the Chair
H. Perigal Esq.
J. Glaisher
Rev. C. Lowndes
Rev. H. Beattie
R. D. Thomson Esq.

The Minutes of the last meeting were read and confirmed

The Secretary announced that proofs of the annual Report for the year 1852 had been sent to Members of Council

And that 5000 Copies of the new Forms for Collecting Obsns. were nearly ready; these had been printed by Messrs Waterlow and Sons for about 16 £

The Secretary gave notice of the time having arrived for preparing the Annual report for the year, and requested the members of Council to furnish some portions of it.

The Secretary announced that the papers for the evening meeting were by Dr. Moffatt, on ozone, and Dr. Smallwood upon the climate of Lower Canada.

H. Perigal Junr.
Treasurer, Chairman
25 April 1854 –

1854 March 28

The Society met at 7 o'clock at 5 Cavendish Square

J. C. Whitbread Esq. Vice President in the Chair

The Minutes of the last Meeting were read and confirmed

A paper was read by Dr Moffatt on Medical Meteorology and Atmospheric Ozone. The author stated that ever since the discovery of Ozone in 1848 by Dr Schonbein, the subject had engaged his constant attention. From tables formed from the observations of the years 1850, 1851, 1852, and 1853, he seeks to establish a connexion between atmospheric ozone and the meteorological conditions of the atmosphere, together with the prevalence of disease and mortality. The chief conclusions at which Dr Moffatt arrives, are – 1stly That ozone periods always commence with decreasing readings of the Barometer and increase of Temperature; and terminate with increasing readings of the barometer and decrease of temperature. 2ndly That as ozone periods commence very frequently with the wind in the South East, and terminate in the North West, those points adjacent to the SE be called their points of commencement, and those adjacent to the latter those of their termination. 3rdly That ozone and cirri always accompany each other and would appear to be peculiar to the South or Equatoreal current. The Author therefore designates

the South points of the Compass, as those of ozone and cirri, and the North or Polar points as those of no ozone and no cirri. 4thly That snow and thunder storms take place generally in the South East points and during calms; whilst hail and aurora are peculiar to the North West points. 5thly That the maximum of disease occurs with the wind in the south points and the maximum of mortality when in the north points. 6thly That some diseases are peculiar to certain directions of the wind. 7thly That apoplexy, Epilepsy, paralysis and sudden deaths, are very common during hail and snow showers and when the wind is in the points at which these phenomena generally occur, viz. the NW and SE. 8thly That ozone is in greater quantity on the West coast than in inland districts. The author concludes by stating that owing to the action of light and the influence of atmospheric currents in producing decomposition of the Iodide of Potassium it is necessary in order to secure uniformity of results, to place the test papers in darkness, and to keep them protected from atmospheric currents.

A vote of thanks was unanimously passed to Dr Moffatt for this paper

Meteorological Report for 1852 by Charles Smallwood Esq. M.D. Lower Canada Lat 45°.32 N Long 73°.36 W.

The highest reading of the barometer during the year was 30.329 inches and took place in

December. The lowest reading occurred in June and was 28.727 inches. The mean temperature of the quarterly periods were Winter 16°.4; Spring 37°.1; Summer 68°.8; Autumn 45°.9. The yearly mean was 42°.9 and the yearly range was as large as 128°.5. The mean humidity of the atmosphere in Winter was .781; in Spring .806; in Summer .810 in Autumn .875. The yearly mean was .823. Rain fell on 88 days amounting to 47.131 inches and was accompanied by thunder and lightning on 17 days. The most prevalent wind during the year was the W the least prevalent the N by W. The mean of the maximum velocity ~~of~~ was 17.632 miles per hour, and the mean of the minimum velocity was 0.463 miles per hour. A slight shock of an earthquake was felt on the morning of the 11th February 1852. To the tables are appended a series of ozonometer observations taken daily, the ozone papers being prepared with the Iodide of Potassium and starch, suspended in the shade and sheltered from the influence of the sun and rain. The Author remarks that as a general law the amount of ozone is small whenever the electrical state of the atmosphere indicates high tension, and vice versa. In conclusion Dr Smallwood expresses a hope that he will shortly be enabled to lay before the Society the results of a series of

experiments he is now making with the view of ascertaining the nature and amount of connexion he believes existent between the compound forms of snow crystals and the electrical conditions of the atmosphere whether negative or positive, under which they are formed

A vote of thanks was given to Dr. Andmurray for this paper

A paper was read shewing the mean annual temperature for 9 years from 1845 to 1853 by Alexander Brown Esq. Arbroath. The average of the monthly means are as follows Jan 36°.2; Feb 37°.1; March 39°.3; April 43°.0; May 48°.7; June 53°.5; July 57°.9; Aug 56°.4; Sept 52°.4; Oct. 46°.0; Nov 40°.2; Dec 38°.9. Mean Annual Temperature 45°.6.

Jams. Chas. Whitbread
Chairman

1854 April 25

The Council Met at ¼ to 6, o clock at Cavendish Square

Present

H. Perigal Esq. In the Chair

J. Glaisher

J. C. Dymond Esq.

The Minutes of the last Meeting were read and confirmed

The Secretary announced that the annual report, and the new form were now ready, and that to send a copy of each to all Members, was most desirable and that the postage on each was 1d. It was resolved that a copy of both be sent to all Members – and the Secretary was directed to send them

The Secretary stated that at the next Meeting the annual report must be read, and that the Election of Officers, must take place, the Institutes were read, so far as they applied to the annual report and election of Officers –

Of the present Officers Messrs Whitbread, Perigal, Thomson and Glaisher had attended every meeting; Messrs Leach, Beardmore, and Reade had attended all but one; Messrs Lowndes, Dymond and Beattie had attended 3 Meetings; Messrs Snell and Pollock twice; Dr Lee, Messrs Brooke and Hornshaw once, and none of the other Officers had attended a single Meeting since last election

As three out of the four Vice Presidents, had been in Office 2 years, by the rules three new V. Presidents were to be selected, and it was resolved that Luke Howard; Mr Lawson, and Dr Lee be Vice Presidents; that H. Perigal Esq. be Treasurer; that the Rev. C. Lowndes and Mr Glaisher be Secretaries; that Mr C. Dymond be Foreign Secretary; that altho' Mr Rutter had not attended any Meeting or given any report for the last year, that circumstances possibly had prevented him attending, and he was again selected for Librarian – The

members of Council who had attended the most regularly it was resolved to select for election, and the following names were mentioned to fill up the vacancies

A. Brady Esq.
C. V. Walker Esq.
Rev. Clark – Bitterne
Carrington Esq.
Dr. Moffatt
A. Nolan Esq.
Rev. J. Hill

And the following were selected

Mr. Ansell
" Beardmore
Rev. H. Beattie
Mr. Brady
Rev. Clark
Mr. Brooke
Capt. Clarke
Mr. Homersham
Mr. Lowe & Mr Walker
Mr. Pollock
Rev. J. B. Reade
Dr. Thomson

The Secretary was desired to call the Council together a few days before the day of Meeting to hear the report read, and to approve of the steps taken this day as Members,

Saml. Chas. Whitbread
Chairman

1854 May 19

The Council met at 6 o clock at 5 Cavendish Square

Present

S. C. Whitbread in the Chair

H. Perigal

H. Boardman

J. P. Dymond

J. Glaisher

The minutes of the last meeting were read and confirmed

The proceedings of the last meeting were then taken into consideration and all were approved, excepting it was resolved as Mr Lowe had been in office from the commencement, that he should be replaced by Mr Walker of Tonbridge

The report was then read and discussed, and arrangements were made for the general meeting on Tuesday next

Saml. Chas. Whitbread

Chairman

1854 October 24

The Council met at 6 o clock at 5 Cavendish Square,

Present

S. C. Whitbread in the Chair
W. Rangol
W. Beattie
Dr. R. D. Thomson
C. Brooke
N. Beardmore
Rev. J. B. Reade
James Glaisher

The council arranged that the days of Meeting next year be as follows.

General Meetings

Tuesday January 23
March 27
May 22
November 27

The Election of Officers as per Statute in May 22

and that the Council meet

Tuesday January 23
February 27
March 27
April 24
May 22
Oct. 23
Nov 27

Since the Last meeting of the Society it appears that the arrangement of the

Meeting

Meeting room have been changed. It being used generally as a reading room, and the Council room as a Class room. No particular care had been taken of the Society's papers &c, and it was referred to next meeting to take into consideration.

The Council examined the nomination papers of candidates for Membership, and discussed their qualifications.

John Lee
Chairman

For Council Minutes
See 2 leaves on

1854 November 28

The Society met at 7 o clock, Dr. Lee in the Chair

A Letter was read, upon the connexion found to exist between the weather, and the growth of Roses, by F. W. Doggett Esq

An account of a Meteor as seen at Harborough on Oct. 15 at 8h. 58m p.m. was read

A second account of the same Meteor as seen at Accrington, by J. F. Stansfield was read

—

An account of a Meteor as seen by W. Huggins Esq., at Cornhill, seen on Apl 1. 1862, at 10h. 1m p.m. was read

A second account of the same Meteor as seen by F. W. Burr Esq at Islington was read. Other obs. of these meteors were numerous

On the motion of Mr Glaisher, seconded by Ch. Brooke Esq., the best thanks of this meeting were given to F. W. Dossett Esq., for his paper

— The following members were balloted for and duly elected

Rev. W. Gardner M.A.; Rev. J. Wolley M.A.; Dr. J. Bird D.C.L. Bombay; Dr. J. F. Burder M.D.; J. Meyerstein M.D.; W. H. Baine M.D.; Thomas Collins Esq.; F. W. Dossett Esq.; E. Hughes Esq.; W. Ingram Esq.; R. C. Kempe, B.A.;

Saml. Chas. Whitbread
Chairman.

1854 November 28

The Council met at 6 o clock,

Present

Dr Lee in the Chair

Dr Thomson

A. Beardmore

W. P. Symond

H. Ancell

H. Pollock

Rev. S. Clark

James Glaisher

Letters were read stating the illness of S. C. Whitbread, and J. Leach, and a letter from Mr Bengal, as the reason of their non attendance

The Minutes of the last meeting were read and confirmed

A letter was read from the President containing a 5 £ note, received by him from Mr Farr, but without explanation

Dr Thomson stated that Mr Farr's engagements were such that he never could attend the meetings of the Society, and that Mr Farr, therefore on leaving, made a present of 5 £ to the Society.

It was suggested that Mr Farr should be made an Honorary Member, and it was also suggested that the Registrar General be made an Honorary Member also, in consequence of the cooperation of both for the advancement of the Science of Meteorology; the subject was then dismissed with the understanding that it is to be taken into consideration at the Next Meeting of Council

A letter was read from Dr Sutherland, of Natal, Africa

stating that a number of gentlemen in the Colony would take Met.l Obs.ns for the Society if they were furnished with Instruments, and suggesting that 100 £ thus laid out would be well bestowed. The Council directed the Secretary to notify to Dr Sutherland, stating that they agreed in the suggestion, but had no funds at their disposal.

The termination of the year's tenancy having nearly expired, the Council took into consideration the present condition of the meeting rooms; it seems that during the past few months, some different arrangements have been made in the meeting rooms, and that no letters have been forwarded to the Secretary, and papers have been mixed together of different Societies. It was resolved that the following gentlemen form a Committee respecting other meeting rooms, or ascertaining clearly the particulars respecting the present room.

Mr Whitbread
Dr Thomson
Dr Lee
Mr Glaisher

Dr Lee said there were rooms at 22 Hart St. Bloomsbury which might be enquired about.

Saml. Chas. Whitbread
Chairman

For Council Minutes
See next leaf

1855 January 23

A General Meeting of the Society took place at 5 Cavendish Square

S. C. Whitbread Esq. in the chair

The Minutes of the last meeting were read and confirmed

"A paper was read on the means of determining the actual amount of evaporation from the Earths surface by Dr. George Buist LL.D. F.R.S

and a paper entitled

"Observations on the weather in connexion with the Crop of Barley"

Mr. William Lawson exhibited a sheet showing the results of a years observations taken at St. Marys Workhouse - Paddington

R D Thomson

1855 January 23

The Council met at Six o'clock.

Present

S. C. Whitbread Esq in the Chair

Dr. Thomson

Mr Symons

Mr Paget

Mr Brooke

Rev. J. B. Reade

The Assistant Secretary Mr W. Richardson

The Minutes of the last Meeting were read and confirmed

Mr. Richardson stated that Mr Glaisher was unable to attend from illness

A letter was read from the Rev. J. Wesley & George Merryweather, Esq, thanking the Council for election into the Society

A letter was read from Henry Gardner, just elected a Member, stating that circumstances had altered since he was elected and that for the present he did not wish to be a Member.

A letter was read from C. Ritchie tendering his resignation

A note was read from Mr. C. P. Roberts and some extracts of Meteorological notes from different newspapers.

John Lee

Chairman

1855 February 27

The Council met at 5 Cavendish Square at 5 o'clock

Present

S. C. Whitbread Esq

Dr. Lee in the Chair

Rev. J. Clark

W. P. Ormerod Esq

T. Boardman Esq

J. Glaisher

H. Bousfield Esq

The Minutes of the last ~~Committee~~ Meeting were read & confirmed

Some correspondence was read between the Secretary and Dr. Richardson relative to the publication of the proceedings of this Society being published in a new work entitled, "The Quarterly Journal of Public Health and record of Epidemics", on the condition that the Council would take ~~into account~~ as many copies as would supply one copy to every Member at the rate of 7/6 per annum for each Member

This proposition was fully considered and it was considered far better to publish an account of our proceedings ourselves at a cost greater. It was also thought advisable to publish the papers which have been read nearly in full in the annual report, some particularly a paper by the Secretary on the form of [illegible] understood to be prepared by the Secretary for the next meeting and other things to the sub committee. The prudence of publishing a Quarterly account of the proceedings, to appear with the Quarterly report upon the weather by the Registrar

George [illegible]

27th March

1855 March 27

The Council met at 6 o clock

Present

The President in the Chair

Dr. R. D Thomson

H. Perigal

Rev. J. Beattie

J. Glaisher

The Minutes of the last Council Meeting were read and confirmed

The Selection of the Officers was then Considered except that of the President, as the Present President will have completed 2 years in May

The President mentioned the name of Lord Robert Grosvenor M.P as president elect – but it seemed doubtful whether his parliamentary and other duties would allow him to attend – the Secretary named Dr. Lee at whose house the Society ~~had first~~ was originally formed – Finally it was arranged that Mr Leach should wait upon Lord R. Grosvenor and have an interview with him – The hour of 7, the time of Meeting having arrived, the Council adjourned the consideration of the other Officers till the next Meeting of Council

George Leach

1855 March 27

The Society met at 5 Cavendish Square at 7 o'clock

Dr. R. D. Thomson in the Chair

A paper was read on the severity of the past winter, as compared with that in the year 1813 – 1814; and on the forms of the snow crystals which fell during the late severe weather. By the Secretary

A vote of thanks was given to Mr Glaisher for this paper, and a wish was generally expressed that the paper, and the drawings should be published as a part of the annual report

Captain Fitzroy R.N., and J. H. Gladstone Esq. F.R.S were balloted for and were elected members of the Society

George Leach

1855 April 24

The Council met at 5 o clock

Present

J. Lee Esq. President in the Chair
S. C. Whitbread Esq
H. Perigal Esq.
Dr. Thomson
A. Brady Esq
N. Beardmore Esq.
Rev. W. Beattie
J. Glaisher

The minutes of the last meeting were read and confirmed

The President stated that he had called on Lord Robert Grosvenor, but, had not yet seen him, and that he was to call again on the following Thursday when he would have that pleasure

The Council then took into their consideration the Officers for the next year

It was again proposed by Mr Glaisher that Dr Lee be the President, and the opinion of the members present was that Dr Lee be ~~the President~~ recommended for election as President, but, that Dr Lee should keep his appointment with Lord Robert Grosvenor, and communicate the Result to the Secretary, with the understanding that if Lord Robert Grosvenor declined, that Dr Lee be ~~written to [illegible]~~ requested him to allow himself to be nominated to the office of President.

The following is the list of Officers selected by them recommended as Office bearers for the following year

Vice Presidents

Dr Lee or Lord Robert Grosvenor
H. Lawson Esq
Dr. Thomson
Rev. J. B. Reade

Treasurer

H. Perigal Esq

Secretaries

James Glaisher Esq
Rev. [illegible]

Librarian

R. P. Dymond Esq

Council

H. Ancell
N. Beardmore
Rev. H. Beddome
A. Brady
C. Brooke
R. J. Clark
Capt Fitzroy
S. C. [illegible]
Rev. C. Lowndes
H. [illegible]
C. V. Walker
S. C. Whitbread

The publication of Mr Glaisher's paper on the late severe weather, together with all the drawings of snow crystals was then taken into account, and it was resolved that that paper be printed in extenso, with all the drawings, the Society paying £20 or so towards its publication, and the remainder, to be made up by the Members of Council. A Committee was then appointed consisting of Dr Thomson, Mr Perigal, and Mr Glaisher, to ascertain the expense of publication, &c.

George Leach

1855 May 22

The Council met at 6 o'clock, at 5 Cavendish Square

Present

George Leach Esq. President in the Chair
S. C. Whitbread Esq
H. Perigal Esq
Dr Thomson
A. Brady Esq
Rev. H. Beattie Esq
Dr Lee
W. P. Dymond Esq
Mr Glaisher

The Minutes of the last Meeting were read and confirmed

The President stated that he had had an interview with Lord Robert Grosvenor, ~~and~~ who was willing to give way in the Presidency in favour of Dr Lee

On the Motion of Mr Whitbread, seconded by Mr Brady, Dr Lee was nominated as President, and the following Gentlemen were nominated Officers &c for the ensuing year, as the house list to be recommended for election

Vice Presidents

Lord Robert Grosvenor M. P
George Leach Esq
Rev. J. B. Reade
Dr Thomson F.R.S

Treasurer

Henry Perigal Esq

Secretaries

James Glaisher Esq, F.R.S
Rev. J. Hill

Librarian

W. P. Dymond Esq

Council

Henry Ancell Esq

W. Beardmore Esq

Rev. H. Boulter

A. Brady

C. Brooke

Rev. J. Clark

Capt. Fellows

J. C. Wormersham

R. C. Lowndes

H. Pollock

C. V. Walker Esq

S. C. Whitbread Esq

The President moved that the sum of 52 £ granted to Mr Glaisher be increased to 60 £; stating that the work performed by him was very great, this motion was withdrawn at Mr Glaisher's request.

John Lee.

President

1855 July 31

The Council met at Hartwell House, at 11^h a.m.

Present

Dr. Lee the President in the Chair
H. Perigal Esq
Rev. C. Lowndes
James Glaisher

The President stated that he expected Mr Whitbread, Dr Thomson, Mr Walker, Mr Brodie, Mr Worsham and Boardman, with other members of the Society between this day and Friday

The President desired Mr Glaisher to invite the following gentlemen to Soirées to be held on the evenings of Wednesday, Thursday and Friday, viz. J. Dell; L. Hunt, Rev [illegible]; E. Bradley; E. Tophet; G. Fielding; H. Whimm; W. Stone; & Rev J. Slatter at 7 o'clock for the discussion of Met^l. questions, these letters were written and approved by the President and posted on the same day. The meeting adjourned till to morrow morning, after the examination of the card for the new list of officers

1855 Aug 2

The Council met at Hartwell House, at 12 o'clock.

Present

Dr. Lee the President in the Chair

H. Perigal
Rev. C. Lowndes
Rev. J. B. Reade
S. C. Whitbread
Dr. R. D. Thomson
J. Glaisher
and
Mr Lee
M. J. Johnson of Oxford Obs^y.

Letters were read from Mr Johnson of Brixton, that he was unable to come; from Mr. Drew stating that he and his sister would come; from Mr Stowe that he and Rev. J. Slatter would come; from Mr W. Wilson that he would come to morrow and from Mr Beardmore that he would come on Saturday.

The Secretary was desired to write to Mr. Drew to ask him to come by 5 o'clock on Friday and to Mr Beardmore to meet us in Oxford on Saturday, and these letters were read

1855 October 30

The Council met at 5 Cavendish Square

Present

J. Lee Esq in the Chair

Captain Fitzroy
Mr Pollock
R. S. Clarke
Mr Symons
Mr Brady
Mr Brooke
Mr Glaisher

In the absence of the ~~Treasurer~~, the Secretary Mr Glaisher announced to the legacy of 200£ free of legacy duty, which had been left to the Society by the late Henry Lawson Esq, F.R.S., Vice President of this Society.

The Secretary read a letter from C. V. Walker Esq. F.R.S. presenting a copy of the Electrical Magazine to every Officer & Member of Council of the Society; 21 copies in all.

The Secretary was requested to write to Mr Walker and to give him the thanks of the Council for this present

Capt. Fitzroy presented to the Society two Wind Charts of the Board of Trade — and exhibited a Case for Thermometers, to be used on Ship board —

Mr Brooke exhibited a vertical force Magnet of the form to be used at the Paris Observatory in magnetic Observations —

John Lee - Chairman

1855 November 27

The Council met at 5 Cavendish Square at 6 o'clock

Present

Dr Lee in the chair
S. C. Whitbread
Capt. FitzRoy
A. Brady
C. Brooke
Rev. J. Clark
Rev. J. Beattie
G. W. Symonds
N. Beardmore
Rev. J. Slatter
J. Glaisher

The minutes of the last meeting were confirmed

The President read a letter from Lieut. Col. James upon the advisability of having a Congress for consideration of Land Meteorological Observations

A discussion followed the reading of this letter, resulting in favor of a conference and the following motion was made

That the letter of Col. James having been fully considered, it was the opinion of the council that a Conference of Meteorologists would be attended with beneficial results providing that the conference was attended by persons qualified to represent the science of the Country.

It was then considered by the council that the subject required more consideration and they adjourned to Thursday week, at 6 o'clock directing the Secretaries to summon all the Members of Council for that day

The Treasurer Mr Perigal, read the letter he had recd. from the Executors of the late H. Lawson Esq. dated Sep 13, 1855 informing him of the legacy of 200£ left to the Society

John Lee. President

1855 ~~January~~ November 27

The Society met at 5 Cavendish Square at 7 o clock

Dr. Lee in the Chair

The following Gentlemen were balloted for and duly elected Sir J. Matheson M.P.; Archdeacon Tattam, Rev. F. Bedford M.A.; Rev M. A. Smelt; Capt. Washington R.N.; Dr. Robertson; Dr. Richardson; G. Dollond; H. A. L. Negretti; R. S. Stedman; C. Tennant; and J. W. Zambra Esqr. Dr. C. Smallwood, of Isle Jesus Canada, was elected an Honorary Member

– A letter was read on the Wind Charts lately published by the Board of Trade, by Captain Fitzroy R.N.

On a new mercurial Minimum Thermometer, by Mr Zambra, of the firm of Negretti & Zambra. This Instrument was furnished with a steel index, as in Rutherford's construction of Maxm. Therr., and as far as one month's experience in the hands of Mr Glaisher it had acted perfectly well. –

A letter was read on an extraordinary Mirage seen at Darlington by John Graham M.B. M.D., as

A letter was read by John Graham, describing an extraordinary Meteor as seen by Miss [illegible] Colliery, by John Graham, M.B. M.D. –

R D Thomson

1856 December 4

The Council met at 5 Cavendish Square at 6 o clock.

Present

Dr. Lee in the Chair

A. Brady Esq

Captn. Fitzroy

S. C. Whitbread Esq

C. Brooke Esq

Rev. S. Clark Esq

Rev. J. Hill

Rev. W. Beattie

C. O. Drummond Esq.

N. Beardmore

J. Glaisher

The Minutes of the preceding meeting were read and confirmed

A letter was read from Lieut. Col. James addressed to J. Lee Esq. President of the Society relative to a conference to be held, upon a system of simultaneous Observation on Land –

It was resolved that the following letter should be sent to Lieut. Col. James,

(Copy) 5 Cavendish Square
1855 December 11

Dear Sir
Your letter to Dr. Lee the President of the British Metl. Society has been laid before a Special meeting of the Council, and as the Members of the Council fully coincide with the view of holding the conference to which you allude, they would be glad to send a deputation to meet any gentlemen interested in the Progress of Meteorology

Lieut. Col. James R. E.

L – L

The Treasurer Mr. Parry read the letter of the Executors of the late H. Lawson Esq, informing him of Mr. Lawson's Legacy of 200 £ to the Society

Saml. Chas. Whitbread
Chairman –

1856 January 23

The Council met at 6 o clock

Present

S. C. Whitbread Esq. in the Chair
Capt. Fitzroy R.N
Dr. Thomson
C. V. Walker Esq
H. Perigal
A. Brady
A. Beardmore
Rev. J. Hide
C. O. Hymmond
Rev. J. B. Reade
J. Glaisher

The Minutes of the last Meeting were read and confirmed

A letter was read from Mr Deacon stating that 400 Copies of the Snow Crystals had been supplied to Messrs Taylor & Francis, and the remainder to others would be finished in a few days. The Secretary stated that the Report was only delayed for the want of these plates, and that he thought it would be out in a few days.

A letter was read from Dr. Greenhill, of Hastings to J Glaisher, the following of which is an extract. Will you kindly (as Secretary of the British Met. Soc.) find out for me on what conditions a Society like ours, which wishes

to do something toward the said quarterly contribution of your Society, can do so? It is plain that our Society could not be expected to pay an entrance fee every time we chose to change our Observer – ~~to that~~

The Secretary stated that he had recently seen Dr. Greenhill, and he had led him to believe that the Society was willing to pay the entrance fee, and the annual contribution,

It was resolved by the Council to recommend the Society to elect the Observer at Hastings, as the Hastings Literary Institution Observer –

Jam.s Chas. Whitbread

1856 January 22

The Society met at 7 o'clock at Cavendish Square

Dr. R. D. Thomson Vice President in the Chair

A note was read on a curious similarity of form in Camphor crystals and Snow crystals and the certain conditions of crystallization by Mr. Glaisher

A letter ~~was read~~ by C. Fulbrook Esq, was read on the influence of the Moon on the fall of Rain

A paper was read on the weather in the past winter by Mr. Glaisher; and some remarks on the weather at Canterbury in December by the Revd. H. Smeeth—

A communication was made by Rev. J. B. Reade on the Meteor of the 7th instant, the Secretary stated that he had also recd. a large number of accounts of this Meteor, from different places

Mr. Cooper of the Margate Observatory, exhibited the results of his obs: exhibited both in Tables, and diagrams for the year 1855

R D Thomson

See next leaf (Transposed)

1856 March 25

The Council met at 6, o clock, at 5 Cavendish Sq

Present

Dr. Thomson in the Chair
Capt. Fitzroy
N. Beardmore
Rev. S. Clark
H. Perigal
Rev. J. Hole
J. Glaisher

The Minutes of the last Meeting were read and confirmed

The Treasurer reported that the sum of 200£ the legacy of the late Mr Lawson, had been that day paid into the Society's account at the Bankers.

The Treasurer also stated that application had been made to every Member for his Subscription; and that a sum exceeding 130£ had been paid, including

two subscriptions of 6£
four of 5£
Three of 4£
12 of 3£
18 of 2£

A letter was read from the President, regretting that indisposition then prevented his attendance, but hoped to be able to be with the Society in April or May and making a donation to the Society of 5.5 £ towards the printing of the last report

N. Beardmore also gave a Cheque for £ 3. 3 towards the printing the last report, and Mr Perigal announced his intention of presenting 3. 3 towards the printing of the last report

The Secretary read letters of resignation from Joseph Fiddlebottom, Thomas Collier; John Davis; T. Hyne, these resignations were accepted

Mr Perigal proposed to elect the Executors of the late Henry Lawson Esq. as Honorary Members of the Society; this proposition was not settled

It was resolved that the Works of the Snow Crystals as arranged be in Mr Glaisher's possession, and be considered as his property —

Saml. Chas. Whitbread

(Transposed)

1856 February 16

The Council met at 5 Cavendish Square, at ½ past 5 o clock

Present

J. C. Whitbread Esq. in the Chair
N. Beardmore Esq.
W. P. Dymond Esq.
H. Perigal Esq.
J. Glaisher Esq.
C. V. Walker Esq.
J. Thornton

The Minutes of the last meeting were read

The Secretary ~~reported~~ stated that the report for 1855, with the engravings of the Snow Crystals was out, and that one Copy had been forwarded to every Member

The Treasurer stated that there were £
3 Members indebted to the Society in the sum of 7 each
6
9 5
16 4
8 3
31 2
40

and that the Total sum owing to the Society exceeded 400 £

It was resolved to make immediate application to the Members for subscriptions due, and the Secretaries and Treasurer were directed to report at the next meeting the steps taken, and the sum collected.

It was also resolved to take steps for the expulsion from the Society of all Members, who declined payment after the 2nd application

J. D. Thornton

1856 March 25th

The Council met at 6 o'clock Evening

Rough copy: For fair copy as revised see 2 pages before this

Present

Dr. Thomson in the Chair
Capt. Fitzroy
A. Beardmore
Rev. S. Clark
W. Pengel
Rev. J. Hill
J. Glaisher

The Minutes of the last meeting were read and confirmed

The Treasurer reported that application had been made to Members for their subscriptions, and that a sum of 130 £ had been received: 2 subscriptions of 6£; 4 of 5; 3 of 4£; 12 of 3£; 18 of 2£ had been paid in

A letter was read from the President stating that he was still unable to attend through illness, but hoped to be able to attend in April or May – and he stated that he would make a donation of 5 guineas to the Society towards the printing of the last report

A. Beardmore Esq. also gave a cheque to the Treasurer for 3 guineas as a donation to the Society towards the printing the last report

The Secretary read letters from [illegible]; Thomas [illegible]; John Davis; T. Hopson;

Mr Pengel proposes to elect the Executors of the late Henry Lawson Esq. as Honorary Members of this Society

Mr Pengel announced that the sum of 200£ the legacy to the Society of the late Henry Lawson Esq. had been paid to the Society's bankers this day

It was resolved that the Blank [illegible] of the present Copies, as [illegible] [illegible] to the [illegible]

For General Meeting
1856 Mar: 25
See 2 leaves on—

1856 April 22

The Council met at 5 o clock
S. C. Whitbread Esq. in the Chair
Present
Rev. H. Beattie
E. V. Walker Esq
N. Beardmore Esq
J. Thomson
H. Perigal
J. Glaisher

The Minutes of the last meeting were read and confirmed

The Treasurer announced that a sum of 19£ had been received since March 22, and that Mr Simms had paid a sum of 12£ as compensation for a [illegible] payment. The sum of 12£ was ordered to be funded
Some discussion then followed relative to the Trustees whose names are J. Lee; S. C. Whitbread; W. Rutter; and J. Glaisher. and it was resolved that the Treasurer be a Trustee in the place of Mr Rutter, who should be requested to transfer the Stock drawn in his name as one of the Trustees to that of Mr Perigal, with the remaining Trustees.
The Officers were then selected for next year. It appeared that Lord R. Grosvenor; Mr [illegible]; Mr [illegible]; and Mr [illegible], had not attended a meeting of Council during the preceding year, and that all the other members of Council had been in nearly constant attendance. It was therefore resolved, that Charles Brooke Esq. F.R.S. be recommended as Vice President in the place of Lord R. Grosvenor, and that [illegible]; [illegible] Esq. F.R.S.; J. R. [illegible] Esq. M.A. and J. W. [illegible] Esq. be recommended as Members of Council

John Lee
President

Rough draft of Minute of first meeting — For fair copy see page 5.

At a Meeting held on the 3rd day of April 1850 at Hartwell House near Aylesbury in the County of Buckingham at which were present John Lee Esq. of Hartwell L.L.D. F.R.S. F.R.A.S. The Reverend Samuel King of Latimer Bucks F.R.A.S. The Reverend Joseph Bancroft Reade of Stone Bucks F.R.S. The Reverend Charles Lowndes of Hartwell, Bucks F.R.A.S. and Samuel Charles Whitbread Esq. of Cardington Beds. F.R.A.S. Edward Joseph Lowe of Beeston Villa near Nottingham Esq. F.R.A.S. ... Fasel Esq. F.R.A.S. of Stone Bucks John Drew Esq. F.R.A.S. of Cumberland Terrace Southampton James Glaisher Esq. F.R.S. F.R.A.S. of Dartmouth Terrace Blackheath and William Rutter Esq. F.R.A.S. of Adelaide Road Haverstock Hill ~~Esquire~~ Hale F.R.A.S.

Mr. Whitbread was called to the Chair

The Chairman opened the proceedings by stating that a ~~strong~~ necessity existed for the formation of a Society the objects of which should be the advancement & extension of the Science of Meteorology by determining the laws ~~and the fuller~~ of Climate, and of Meteorological phenomena in general ~~development of the laws as applied to sanitary~~ the practical importance of these determinations ~~of [illegible] measures, the causation of Storms & the deduction~~ as applied to Sanitary measures, as well as to ~~of the normal values of different climates &~~ [illegible] to Agriculture, Navigation, and [illegible] to ~~other phenomena & subjects of practical~~ the closing of Storms or [illegible] ~~utility~~. He adduced various arguments in support of his statement and after several observations made by the Gentlemen present & a ~~short~~ paper of [illegible] read by Dr. Lee, the following resolutions were unanimously adopted.

That a Society for the objects aforesaid be now formed to be called "The British Meteorological Society"

That the Society consist of Ordinary & Honorary Members and that the aforesaid Gentlemen be the original & ordinary Members

with power to ~~admit other~~ add to their number Members.

That the Officers of the said Society ~~be~~ shall consist of a President. Vice Presidents ~~the number of the latter not being then determined~~ a Treasurer a Secretary and a Council ~~the number of the latter being also left undetermined~~ of which Council the President Vice Presidents Treasurer & Secretary should be ex officio Members ~~and~~ that three members of ~~such~~ Council do form a quorum.

That for the current year ending the 31st day of December 1850 Mr. Whitbread be President Dr. Lee Treasurer Mr. Glaisher Secretary and Messrs. King Reade Lowndes Lowe Drew Fasil & Rutter Members of the Council with power as the Society may hereafter see fit to increase the number ~~of such Council~~

That the annual subscription of each of the present and future ordinary Members of the Society be £1. for the current year to end on the 31st day of December ~~in each year~~

That the Meetings of the Society be held on the 1st Tuesday in each month at such hour of the day & at such places as ~~should~~ may thereafter be agreed upon. The next meeting to be held at the House of Dr. Lee 5 College ~~Square~~ Doctors Commons London on the 7th day of May ~~th~~ next at 4 o'clock p.m.

That the present Rules be reconsidered & further Rules made & ~~further~~ the Officers filled up at the next or any subsequent meeting of the Society.

Out of place; should be 2 pages before this
1856

British Meteorological, March 25. Dr. R. D. Thomson Vice President in the Chair. The following gentlemen were balloted for and duly elected Members, George J. Symons Esq.; Dr W. Camps; Warrington Smyth Esq.; Thomas Pearce Esq. and R. Stephenson Esq. M.P. The following papers were read On the relative values of the ozonometers of Drs Schonbein and ~~Moffat~~ Moffat by Dr Barker of Bedford. The author remarked that the first observations on ozone on record in this country were taken by Dr. Moffat, of Hawarden in 1848. He having prepared test papers of his own, and had his own observations of the ozonometers of Schonbein and Moffat commenced in October 1853, and in order to compare the two kinds, he obtained his papers from Schonbein's accredited agent, and ~~those of~~ from Dr. Moffat himself; [illegible] constructed a box giving [illegible]

[illegible]

with Dr. Moffat's papers, [illegible] accordance with Dr. Schönbein's plan, it was found a coloured paper was taken with any fixed number scale of brown before immersion, it agreed with the number of blue on Schönbein scale.

During the 15 months of which the observations were t[illegible] were 52 days on which no ozone was shewn by Sch[illegible] when Moffat's indicated its presence, but not one [illegible] was there when Moffat's papers were not tinged, whe[illegible] shewed that there was any ozone. From these re[illegible] can have no hesitation in saying that the pape[illegible] by Dr. Moffat are more sensible, and therefore more

at 4 o clock

That the present Rules be reconsidered & further Rules made & ~~further~~ the Offices filled up at the next or any subsequent meeting of the Society.

A Paper on the relative values of the ozonometers of Drs. Schönbein and Moffat, delivered before the British Meteorological Society on Tuesday evening March 25. 1856 by T. H. Barker. M.D.

In the year 1840 Dr. Schönbein discovered the then new principle in the atmosphere, which he called ozone, ~~still~~ the first observations on record in this country were taken by Dr. Moffat, of Hawarden in the year 1848, he, having prepared test papers of his own. The ozonometer consists of strips of paper prepared with iodine of Potassium and starch, they should be suspended in such a situation that they may have the air come upon them, ~~still~~ but not to have the direct rays of the sun. When the Paper is affected by ozone, we find it slightly coloured with brown varying in 10 different shades, but when moistened it assumes a blue tinge, and shortly becomes perfectly colourless. These precautions, as well as removal from, dungheaps and stables are requisite with Dr. Schönbeins papers. Dr. Moffats papers should be suspended in a box, whose bottom is so made as to admit a free supply of air, but not of light; it likewise assumes a brown colour, and provided it be kept in a dark place, ~~it~~ retains that colour for a long period.

In order to compare the two kinds of ozonometers, a box was constructed giving a free passage to the air, but not to the light, and the two kinds of papers were suspended side by side, procured from the proper agent, and observations taken at 9 AM daily. In most cases the discoloured papers were compared with the brown tints supplied with Dr. Moffats papers; but whenever dipped in water in accordance with Dr. Schönbeins plan, it was found, that if a coloured paper was taken with any fixed number of Moffats scale of brown before immersion, it agreed with the same fixed number of blue on Schönbeins scale.

During the 15 months of which the observations were taken, there were 52 days on which no ozone was shewn by Schönbeins papers when Moffats indicated its presence, but not one single instance was there when Moffats papers were not tinged, when Schönbeins shewed that there was any ozone. From these remarks we can have no hesitation in saying that the papers prepared by Dr. Moffat are more sensible, and therefore more to be relied

upon for the indication of ozone than Dr. Schönbein; and in more places than this has their difference been noticed, for we read in the report of the Meteorology of London by Mr. Glaisher that, "It was found that the papers prepared by Dr. Moffat were more sensitive than those of Dr. Schönbein".

Although we find the ozone papers of Dr. Moffat preferable to those of Dr. Schönbein, still to Schönbein it is we owe the thanks for having discovered ozone; and to Moffat for improving the mode of registering ~~its~~ its presence ~~ozone~~, and for being the first in this country who made observations, and told his investigation to the public. Thus we hope that all Meteorological observers who have not added the ozonometer will immediately do so, and likewise make use of the papers prepared by Dr. Moffat.

Though the knowledge of ozone is at present limited yet with the combined working of many, doubtless its mysteries will be disclosed. We shall now with the intention of encouraging observers, conclude with a quotation from the report by the Secretary to the Society just refered to. He says (page 71) "I rejoice that the persevering spirit of enquiry which distinguishes ~~itself~~ the present day, should have added another meteorological element of investigation to the preceding, one too, which if somewhat verging upon the field of chemical enquiry, promises to be a subtle and important agent, in aid of this research into the nature and extent of Meteorological influence upon the rise and progress of cholera. That these influences are great it is not possible to doubt, and equally impossible it is to believe that uncombined with others they are sufficient to account, for the sudden and formidable growth of a disease, which in a few weeks from hitherto unexplained ~~[illegible]~~ causes, rises with giant strides into a devastating power, more formidable than any other country has known, and which with even greater rapidity has subsided, to be renewed, when, we know not; unless a series of investigation like the present, shall reveal to us the condition of its rise and progress. The conjoining here a link of enquiry from a field so fraught with importance to the entire investigations as that of chemistry, I consider greatly in aid of this enquiry, and purpose to discuss the ozone observations at my command with the utmost vigour."

A paper was also read on the Meteorology of 1855 [illegible] of St Martin Isle Jesus, Canada East by Dr. Smallwood. The author states that the winter [illegible] and then go on from your paper

The winter of 1855 commenced about the first week in December 1854; though the first fall of snow was in the middle of October; still on the 3rd of December 1854 the wind blowing from the N.E at the velocity of 40 miles per hour, bringing with it crystals of snow about 0.10 ~~[illegible]~~ inch in diameter and very severe weather followed throughout the whole of Canada and the United States of America.

During the month of December on the 22nd at 3 p.m the Temperature was −8°.1 ~~below zero~~, but at 6 a.m on the 23rd it was −36°.2 ~~below zero~~ or 58°.2 below freezing. January (1855) was not so remarkable for cold, snow only falling on 8 days. A very slight shock of an Earthquake ~~[illegible]~~ was felt on the 13th. On the 7th of February the Thermometer fell to −33°.9 or 55.9 below the freezing point of water ~~below zero~~, the month was generally cold, no rain fell during the whole of it. During the Spring quarter the Temperature was considerable warmer ~~[illegible]~~, the last storm of snow was on the 11 of April, and on the 18th of April happened a very heavy Thunder storm, ~~[illegible]~~ (Henley's) Electrometer shewing 10° of a Negative Character. In the Summer quarter the West and South West Winds prevailed. The first frost was felt on the 18th of August doing great damage to the crops, principally the Buckwheat. Thunder and Lightning came on 9 days. The months of October and November were remarkable windy, about the middle of November the smaller rivers became frozen over and the Snowbirds made their appearance. Throughout the year, 41.943 inches of rain fell, and 85.9 inches of Snow. The West wind was the most prevalent and the greatest velocity was on the 26 of April being 49.16 miles per hour. Thunder and Lightning on 14 days and the Aurora Borealis visible on 37 days.

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Chemistry, I consider greatly in aid of this enquiry, and purpose
discuss the ozone observations at my command with the utmost
…your.

A Paper on the Meteorology of 1855 collected from observations
taken at St. Martin, Isle Jesus, Canada, East, by Dr. Smallwood.
Delivered before the Meteorological Society on Tuesday Evening
March 25th 1856.

The winter of 1855 commenced about the first week in
December 1854; though the first fall of snow was in the middle
of October; still on the 3rd of December 1854 the wind blowing from
the N.E at the velocity of 40 miles per hour, bringing with
it crystals of snow about 0.10 ~~part~~ inch in diameter
and very severe weather followed throughout the
whole of Canada and the United States of America.
During the month of December on the 22nd at 3 p.m the
Temperature was − 8°.1 ~~below zero~~, but at 6.a.m on the 23rd
it was − 36°.2 ~~below zero~~ or 58°.2 below freezing. January (1855) was not so remarkable
for cold, snow only falling on 8 days. A very slight shock
of an Earthquake ~~for~~ was felt on the 13th. On the 7th of
February the Thermometer fell to − 33°.9 or 55.9 below the freezing point of water ~~below zero~~, the
month was generally cold, no rain fell during the whole
of it. During the Spring quarter the Temperature was
considerable warmer ~~smaller~~, the last storm of snow was on
the 11 of April, and on the 18th of April happened
a very heavy Thunder storm, ~~Hunter's~~ (Henley's) Electrometer shewing
10° of a Negative Character. In the Summer quarter
the West and South West Winds prevailed. The first frost
was felt on the 18th of August doing great damage to
the crops, principally the Buckwheat. Thunder and Lightning
came on 9 days. The Months of October and November
were remarkable windy; about the middle of November the
smaller rivers became frozen over and the Snowbirds
made their appearance. Throughout the year, 41.943
inches of rain fell, and 85.9 inches of Snow. The West wind
was the most prevalent and the greatest velocity was
on the 26 of April being 49.6 miles per hour. Thunder and
Lightning on 14 days and the Aurora Borealis visible on 37 days.

Cloudy weather coming on the first of May consequently the Eclipse of the Moon was not visible; the daily amount of ozone was very variable.

Respecting the Electrical State of the Atmosphere, almost daily indications of Electricity have been noticed, and from observations taken for some years past, the following inferences have been drawn:–

1st The Electricity of calm or windy weather, but unaccompanied by Rain, Snow or Hail, chiefly indicates that of a Positive character.

2nd During the Thunder and Lightning storms of Summer it is common for the Electricity to change its kind several times in a minute, but Rain falling generally decides those of a Negative character.

3rd The Snow Storms of Winter, provided the crystals be of a perfect shape, have always indications of a Negative character; on the other hand if the crystals be not of a perfect form the Electrometers are but very slightly moved, and generally indicative of Electricity of a Positive character.

The crystal being of a Hexagonal shape gives rise to the greatest excitements of Electricity.

The Snowstorms remarkable in the winter season in Canada, always commence with the wind in the N.E.; and for a short time before the snow falls, the Barometer suddenly sinks, and the wind is rather high; 12 inches of snow frequently falls in these storms. The wind then veering to the West, the sky becoming perfectly cloudless, the Electrometers indicating Electricity of a Positive character, the intensity slowly decreases and the cold cutting wind becomes comparatively a calm.

John Lee
President

1856 May 27

The Council met at six o'clock at 5 Cavendish Square

Present

Dr Lee, President in the Chair
Mr Whitbread
Dr Thomson
Revd J Beattie
Mr Rangal
Revd J. Hill
Mr Beardmore
Mr Glaisher

The Minutes of the last Meeting were read and confirmed

The Treasurer stated that he had recd several subscriptions which were in arrear but there still some of 5 and 6 years were then outstanding

The report to be read at the general Meeting was then considered, and settled the time of the Council for 7 o'clock

The Secretary stated that he had had a letter from Mr Tatham stating it is his intention to present his Father's Meteorological observations to the Society

Saml. Chas. Whitbread
Chairman –

Out of place. should be 2 pages further on

On the Weather in connection with Wheat crops by F. W. Doffett Esq.

Having investigated not only the temperature, but also the kind of crops that were general for the last 20 years, it has been universally noticed that the largest and best crops have always been when the temperature has exceeded the average, and on the contrary when the year has been cold the crop has been inferior. Rain does not appear to affect so much as might be anticipated.

For determining as nearly as possible what temperature the summer is likely to be, I have since the year 1771 obtained the temperature of the first nine months in each year, and by dividing it into three equal periods, I find that whenever the first three months were warm or cold they were followed by summer months of the same description of temperature; and during the 86 years that I have investigated, only three instances occur to the contrary: so we may generally say the laws hold good; and I am I find supported by Mr Glaisher, who says; "it would seem ~~that~~ any hot or cold period has been ~~followed by~~ mostly accompanied by weather of the same character;" and taking this as a rule we may by noticing the weather in the first three months calculate with a little amount of certainty what kind of crops we are to expect. And if these investigations be continued and followed up, doubtless they will prove to be of no small service to the country at large.

The following gentlemen were balloted for and duly elected officers for the ensuing year.

President.
J. Lee Esq. LL.D. F.R.S. F.R.A.S

Vice Presidents.
C. Brooke Esq. F.R.S
G. Leach Esq. F.Z.S
Rev. J. B. Reade F.R.S
R. D. Thomson Esq. M.D. F.R.S.L & E.

Treasurer
H. Perigal Esq. F.R.A.S

Secretaries.
J. Glaisher Esq. F.R.S. F.R.A.S
Rev. J. Hill B.D. F.R.A.S

Librarian
E. P. Dymond Esq. F.R.A.S.

Council.
N. Beardmore Esq. C.E
Rev. H. Beattie M.A.
A. Brady Esq. M.R.S.
J. R. Campbell Esq. M.A
Rev. S. Clark M.A
F. W. Doffett Esq.
Capt. R. Fitzroy R.N. F.R.S
Rev. C. Lowndes M.A F.R.A.S
T. Moffat Esq. M.D. F.R.A.S
T. Sopwith Esq. F.R.S
C. V. Walker Esq. F.R.S
S. C. Whitbread Esq. F.R.S. F.R.A.S

John Lee
President

1856

British Meteorological Society May 27. Dr. J. Lee President in the chair. The following gentlemen were balloted for and duly elected members; Hugh, Lee Pattinson Esq.; Dr. J. W. Tuke; Rev J. Hughes and H. Allnutt Esq. C.E. The following papers were read; On the Physical Character of the Urine in relation to disease and atmospheric conditions; by Dr. Moffat of Hawarden in which the author ~~stated~~ stated that.

62° was ... all the observations during the whole of this investigation have been reduced to that degree of temperature.

It was found that the maximum of solids in the urine agree with those atmospheric conditions which give the maximum of diseases; the quantity of solids is greater with decrease in the degree of humidity than when there is a great amount of moisture in the air; and higher during calm weather than when there is a current of air. It was also discovered that the amount of solids was 29 grs greater on days of diseases than when none; and on days of deaths 74 grs greater than on days of no deaths. Then we found that the maximum of disease and solids, and the maximum of death took place with readings of the Barometer and Thermometer decreasing, but in the former the ~~wind~~ wind in the southern points and in the latter in the Northern. The amount of solids also in the urine vary greatly in different seasons, for the ~~three~~ months ~~from~~ the beginning of April to the end of June the quantity of solids were 235 grs. greater than the three following months.

~~[illegible]~~ In order to arrive at any reliable facts, observation should extend over a long space of time, and be conducted in a most accurate and careful manner; and though we would

On the Physical character of the urine in relation to disease, and atmospheric conditions; by Dr Moffat of Hawarden.

By a series of careful Meteorological Observations for the last five years taken at this place, it appears that the maximum of diseases takes place ~~with~~ with readings of the Barometer & Thermometer both decreasing and the ~~the~~ wind between the points SE and NW by way of South; ~~but~~ and that the maximum of deaths happen with the same readings of the Barometer but with the wind between the points NW and SE by way of North. Encouraged by these discoveries, and deeming it of the utmost importance to ascertain whether changes in the animal functions could be discovered during atmospheric variations; a series of observations were taken, and constant examinations made during a space of eighteen months which have proved to be highly interesting, and extremely encouraging.

It will be necessary to state that the individual upon whom the experiment was made, was a man ~~of~~ enjoying good health, and having both mental and manual labour, being freely exposed to weather six hours daily. As it is well known that the density of all bodies varies with the temperature 62° was taken as the standard temperature of the urine and all the observations during the whole of this investigation have been reduced to that degree of temperature.

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not be found to be too speedily jumping at conclusions, still we may safely say that the quantity of solids in the urine is greater during decreasing reading of the Barometer and Thermometer and with the wind in the South, than when the reverse takes place, and likewise greater during dry air than damp; and lastly that at the time when the readings of the Barometer are changing from high to low, the greatest amount of solids is found in the urine, and at this time also the maximum of diseases takes place; and it is quite possible that the urine of one person may shew visible signs of functional derangement though without any apparent disease, while another person may be under similar circumstances, may be seriously ill.

A communication also on the weather in connection with the ~~Wheat~~ Wheat crops by Mr. Doggett.

Having investigated not only the temperature but also the kind of crops that were generated for the last twenty years, it has been universally noticed that the largest and best crops have ~~also~~ always been when the temperature has ~~to~~ exceeded the average, and on the contrary when the year has been cold the crop has been inferior. Rain does not appear to affect so much as might be anticipated. For the purpose as far as possible of determining what temperature the summer is likely to be, I have since the year 1771 ~~took~~ obtained the temperature of the first nine months in each year and by dividing it into three equal periods, find that when the first three months were warm or cold they were followed by summer months of the same description of temperature; and during the [illegible] years that I have investigated only three instances occur to the contrary, so we may say generally the law holds good; and I am, I find, supported by Mr. Glaisher who says, "it would seem that any hot or cold period has been mostly accompanied by weather of the same character." And taking this as a rule we may by noticing the weather in the first three months, calculate with a ~~[illegible]~~ fifth amount of certainty what kind of crop we are to expect. And if these investigations be continued and followed up, doubtless they will prove to be of no small service to the country at large.

1856 October 28

The Council met at 5 Cavendish Square at ½ past 5, o clock

Present

Mr Whitbread in the Chair

Capt. Fitzroy

Mr Doggett

Mr Perigal

Mr Dymond

R. J. Hill

J. Glaisher

The Minutes of the last meeting were read and confirmed

The Secretary read a letter he had recd. from Dr. Miller President of the Microscopical Society, as announced, relative to the meetings of that Society at Burlington House

A letter was read, as announced, from Mr. McLeod Her Majesty's Consul at Mozambique, asking for a set of Meteorological Instruments.

The Council desired the Secretary to write in reply and to say they had no funds at their disposal for the purchase of Instruments.

Capt. Fitzroy brought ~~forward~~ under the notice of the Council the necessity of having a newly constructed instrument for the determination of temperature in deep sea soundings, and after some discussion, it was resolved that each Member of the Council should use his best means for obtaining such an Instrument

H. Perigal Junr.

25 Nov 1856

'For Council Minutes. see 4 leaves on —

British Meteorological Society

1856

November 25th Dr Lee ~~President~~ in the Chair. ~~The~~ following gentlemen were elected members. W. Huggins Esqr F.R.A.S. B. J. Guffith Esqr, W. Vicary Esq and Professor Hennessey, the following

~~A~~ Paper by Dr Moffat on the results of ozone observations at different heights, taken during the months of March, April, May, and June of the present year. The three stations at which the ozonometers were suspended were, one at the Level of the sea, at the distance of a quarter of a mile from ~~the~~ a Tidal River; ~~the~~ the second at the height of 260 feet distant two miles ~~from the River~~ and the last at the height of 600 feet, four miles distant from the River. The quantity of ozone was found to be much greater at the height of 260 feet than at the sea level, but ~~was~~ considerably smaller at 600 feet high than at 260 — The Station 600 feet high is situated to the S.E. of a small town, near which are many brickworks & potteries, and to the S.W. are also brick & coal works; when these are in full work the air is entirely changed by with the products of combustion. When the wind blows from E; SE; or S; ~~or N.E.~~ the ~~changed~~ charged air would be carried to the station at the height of 600 feet: but when blowing from W; or SW; the air would be taken to the station at the sea level. Thus it appears that the maximum quantity of ozone at the sea level corresponds very nearly with the points of the compass.

Meteorological Observations also were read made on the Steam Ship "Royal Charter" Captain Boyce, during her voyage to and from Sidney between February 16th and by F. Hales Esqr. April 15th in her out passage, and May 26th & August 12th in her home passage. On the 5th of March a brilliant meteor was seen to fall from the constellation Orion to Ursa Major. On ~~February~~ April 1 and 2 Icebergs were seen; (~~on the 5th an eclipse of the Sun~~) and on the night of the 12th the wind blew from the N.NE; and changing to the SE blowing a gale, ~~and~~ the Barometer Reading fell in 4 hours ~~to the~~ from 29.30 inches to 28.70 inches; the hurricane subsided at 11 a.m on the 13th and at noon of that day the Barometer reading was 29.88 inches.

The amount of ozone was found to be ~~[illegible]~~ much less in latitudes 50° S and 25° N of the Equator, and appeared in large quantities both in ~~[illegible]~~ in North and South of those latitudes.

Observations on Board the "Marlborough" during her passage from Calcutta to England ~~from March 17th~~ during the present year. 1857 Between ~~the point of leaving~~ viz India & the Equator the temperature of the water on 11 days was higher than that of the air; the average temperature of the sea being 84°.7 & that of the air 82°.7. The mean height of the Barometer was 30.000 inches, and the Range remarkably small. The specific gravity of the ocean underwent very considerable changes; and it was found that an actual decrease in density took place when in the immediate vicinity of the line. Between the Equator and a point ~~the~~ immediately south of Fort Dauphin in ~~the~~ Madagascar the temperature of the air and sea were ~~very~~ equal; The mean height of the Barometer was 30.050 and was found to read the highest ~~with the~~ during the prevalence of the SE wind. The mean specific gravity of the water was 1024.30, and it was again observed that the density of the water was less in the vicinity of the Equator than in higher latitudes. From directly south of Madagascar to the Cape of Good Hope, the temperature of the air was found to be nearly 4° warmer than that of the ocean, the former being 69°.3 the latter 65°.6. As regards the increase of the temperature of the water in a Storm ~~we may~~ it may be added that on the 26th of April, a hard gale blew with high sea, the temperature of the sea was 72°.5 and that of the air 70°.0 giving a decrease of 2°.5. The mean ~~two~~ reading of the Barometer was 30.240 and the range 1.13 in. The specific gravity of the water was 1026.33, and did not appear to be influenced by the proximity to land. From the Cape of Good Hope to St. Helena the temperature of the air was higher than the water by 3°.

Jam. Cha. Whitbread
Chairman

Mr Whitten
Capt. Tatum
Dr Lee
Mr Beardmore
Mr Brayley
Mr Glaisher

} Committee

Committee to meet at Your Chambers

present -
It was moved by Rev. James Hill and seconded by Rev. H. Beattie that we do not change the place of Meeting at present, but to take the rooms for 3 months - This motion was carried unanimously

Thos. Sopwith

No.

BRITISH METEOROLOGICAL SOCIETY.

____

____

being desirous of admission into the BRITISH METEOROLOGICAL SOCIETY, We, the undersigned, propose and recommend him as a proper person to become a Member thereof.

Witness our hands, this day of 18

______________________ {from personal knowledge.

____

____

Proposed ______________________

Elected ______________________

Admitted ______________________

M. Andrés Poey, director of the ~~H~~ Meteorological Observatory of Havanna read a paper on some curious and authentical effects of Lightning, with a theoretical explanation of them.

M. Poey divided his paper in four parts. In the first part he considered the physical-mecanical action of Lightning. In the second part the cold fusion of Franklin which he think ought to be sustained as being a purely mecanical fusion where heat has not any action. So Lightning in some cases has the propriety of reducing to ashes or to pulverisation solid bodies, even the human body without given any signs of heat. The third, fourth and fifth parts of Mr. Poey's paper treats on the inflammation of combustible bodies, on the defragration and reduction to colored oxyde of the wires, and on the reduction to ashes of different bodies being struck by Lightning. The sixth part he treats of the congelation of persons struck by Lightning and in the ~~sixth~~ seventh and last part he speaks of some cases of paralyses being cured by Lightning and others the desease is caused by the same means

Read Jan: 27 1857

had been made ... having the same rooms as hitherto, for their use, at the same rate as ~~[illegible]~~ at present.

It was moved by Rev. James Hill and seconded by Rev. H. Beattie that we do not change the place of Meeting at present, but to take the rooms for 3 months – this motion was carried unanimously

Tho^s. Sopwith

1856 November 25

The Council met at 6 o'clock at 5 Cavendish Square

Present

S. C. Whitbread
D. Thomson
Capt Fitting
Dr Lee
Mr Beardmore
Mr Pengue
Mr Glaisher
Mr Symons
Mr Beattie

The Minutes of the last meeting were read and confirmed

A letter was read from the President of the ~~Meteorological~~ Chemical Society, stating that the Council of the Society had resolved to take into their consideration the granting the members of this Society to meet in their rooms at Burlington House, when they were in possession of the rooms themselves

The present state of the Society with respect to Meeting rooms was then taken into consideration. It appeared [illegible] ently [illegible] the had been made [illegible] having [illegible] the same rooms as hitherto, having [illegible] for their use, at the same rate as ~~[illegible]~~ at present –

It was moved by Rev. James Hill and seconded by Rev. H. Beattie that we do not change the place of Meeting at present, but to take the rooms for 3 Months – this motion was carried unanimously

Thos. Sopwith

that by present arrangements we paid 20 £ annually in advance for the use of the rooms we now occupy. and that this arrangement would cease at the end of this year.

It was resolved to appoint a Committee, consisting of Mr Whitbread
Capt. Fitzroy
Dr. Lee
Mr Beardmore
Mr Rennel
Mr Glaisher

there to be a quorum to arrange about the place of meeting for the future.

Capt. Fitzroy said that he thought the Royal Geographical Society would allow us to meet in their rooms, and he was desired to make enquiries, respecting the possibility of so doing.

Dr. Lee said he could make arrangements to meet at 22 Hart Street, if necessary at a very small expense.

Nath Beardmore

had been made ... the same rooms as hitherto, paying the ... for their use, at the same rate as at present.

It was moved by Rev. James ... and seconded by Rev. H. Beattie that we do not change the place of meeting at present, but to take the rooms for 3 months. This motion was carried unanimously.

Thos. Sopwith

The meeting decided not to change the place of meeting, but to take the rooms for 3 months, moved by Rev. J Hill seconded by Mr. Beattie carried unanimously.

Mr. Beardmore in the chair
- Doffet
- Walker
- Hill
Clark
- Dymond
- Beattie
- Brady
- Glaisher
- Perigal.

had been made to [illegible] having the same rooms as hitherto, for their use, at the same rate as ~~present~~ at present –

It was moved by Rev. James Hill and seconded by Rev. H. Beattie that we do not change the place of Meeting at present, but to take the rooms for 3 months – this motion was carried unanimously

Thos. Sopwith

1857 January 27

The Council met at 6 o clock at 5 Cavendish Square

Present

Mr Beardmore in the Chair

Mr Doggett
Mr Walker
Rev. Mr Hill
Rev. S. Clark
Mr Dymond
Rev. W. Beattie
Mr Brodie
Mr Pengel
Mr Glaisher
~~Mr Beardmore~~

The Minutes of the last meeting were read and confirmed

The Committee consisting of Mr Whitbread; Capt. Fitzroy Dr Lee; Mr Beardmore, Mr Pengel and Mr Glaisher – appointed at the last Meeting relative to the future place of Meeting, reported that the Geographical Society had kindly offered the use of their rooms for this Society's meetings during the present Session, and that the offer had been acknowledged and a letter of thanks sent –

The Committee also reported that arrangements had been made to continue meeting in the same rooms as hitherto, having Quarterly for their use, at the same rate as at present –

It was moved by Rev. James Hill and seconded by Rev. H. Beattie that we do not change the place of Meeting at present, but to take the rooms for 3 Months – This motion was carried unanimously

Thos. Sopwith

1857

British Meteorological. January 27. S. C. Whitbread ~~President~~ in the chair. The following gentlemen were balloted for and duly elected members. M. J. Johnson Esq. Radcliffe Observer of the Observatory Oxford and President of the Royal Astronomical Society, also C. Cory Esq. The following papers were read,

"On the determination of the mean temperature of every day as deduced from the observations taken at the Royal Observatory Greenwich during the 43 years ending 1856" by J. Glaisher Esq. F.R.S.

This paper has for its object the determination of the true distribution of heat over the year and is based upon an extensive series of observations taken at the Royal Observatory. In order to obtain a correct determination of the mean daily temperature of each month necessary to the proposed object the author at the commencement of ~~this~~ his paper explains how he has divided the series into groups according to the time of observation and applied the necessary corrections calculated from his tables for diurnal range published in the Phil: Trans: for 1848. The mean value for every day is then determined for all the years, & the results laid down on a diagram, & a curve line made to pass through the points and in this manner the adopted mean temperature is found.

The author concludes his paper by observing that there are periods of some duration which are very remarkable on account of the difficulty of assigning a physical cause. Starting from the lowest temperature in January they increase to the end of the month when there is a slight variation till the 15th of February. From this time they again increase (with the exception of 4 days in the beginning of March) till the 10th of May when other 4 days of cold follow. After this period the temperature may be said steadily to rise till the end of July (the temperature during the month of July only differing a few tenths of a degree) when it attains its maximum temperature. From this time the decline of temperature is very regular till the end of November when a sudden & considerable increase takes place: after which it decreases to the end of the year.

In January the mean temperature of the coldest day was 10.7 which took place on the 20th of the year 1838. The mean temperature of the hottest day was 52.7 on the 24th of the year 1834. ~~They difference is 42.0 and it amounts to the extreme difference between~~

In February the mean temperature of the coldest day was 12.6 on the 9th of the year 1816. The mean temperature of the hottest day was 55.0 on the 9th of the year 1831

In March the mean temperature of the coldest day was 22°.1 on the 13th of the 1845. The mean temperature of the hottest day was 58°.6 on the 31st of the year 1815.

In April the mean temperature of the coldest day was 27°.8 on the 1st of the year 1836. The mean temperature of the hottest day was 63°.2 on the 25th & 26th of 1821.

In May the mean temperature of the coldest day was 36°.2 on the 3rd of 1832. The mean temperature of the hottest day was 72°.4 on the 15th of 1833.

In June the mean temperature of the coldest day was 45°.0 on the 7th of 1814. The mean temperature of the hottest day was 76°.1 on the 13th of 1818.

In July the mean Temperature of the coldest day was 47.7 on the 20th of 1836. The mean temperature of the hottest day was 79°.1 on the 15th of 1825.

In August the mean temperature of the coldest day was 43°.2 on the 31st of 1833. The mean temperature of the hottest day was 75°.3 of the 1st of 1825.

In September the mean temperature of the coldest day was 40°.7 on the 28th of 1824. The mean temperature of the hottest day was 73°.5 on the 2nd of 1824.

In October the mean temperature of the coldest day was 26°.4 on the 29th of 1836. The mean temperature of the hottest day was 64°.5 on the 5th of 1834.

In November the mean temperature of the coldest day was 23.4 on the 24th of 1836. The mean temperature of the hottest day was 59°.7 on the 2nd of 1834.

In December the mean temperature of the coldest day was 18°.4 on the 24th of 1830. The mean temperature of the hottest day was 56°.0 on the 7th of 1856.

Also a paper by M. Andrés Poey director of the Meteorological observatory of Havanna, on certain curious stile on the effects of lightning, together with a theoretical explanation of the same. Mr. Poey divided his paper into four heads. Firstly he considered the physico-mecanical action of lightning; secondly on the cold fusion of Franklin which he thinks ought to be retained as being a purely mecanical fusion where heat has not any action. So lightning in some cases has the property of reducing solid bodies to ashes or to pulverization; even the human body without there being any sign of heat. Thirdly on the inflammation of combustible bodies. And lastly Mr. Poey spoke of the effect of lightning on paralysis in some cases of its curing and in others causing that disease.

Also a communication [illegible] received [illegible] Washington [illegible] the Hydrographic [illegible] East and North [illegible]

February 24. 1857

The council ~~at~~ met at half past 5 o'clock at 5 Cavendish Square

Present

Mr. Sopwith in the chair
Mr. Whitehead
Mr. Beardmore
Mr. Walker
Mr. Brady
Mr. Brooke
Dr. Thomson
Mr. Dymond
Mr. Doggett
Mr. Glaisher

The minutes of the last meeting were read and confirmed.

It was moved by Mr. Whitehead and seconded by Mr. Beardmore that the future president be Mr. Sopwith; this motion was carried unanimously.

It was decided that Mr. C. Greaves and Mr. J. W. Doggett be recommended at the next general meeting to act as auditors during the coming year.

It was moved by Mr. Doggett and seconded by Mr. Dymond that the paper read by Mr. Glaisher at the last general meeting be ~~be~~ immediately printed, provided the expense did not exceed £30.

Nath. Beardmore
Chairman

Meteorological Society.

March 24. 1857.

The council met at 6 o'clock at 5 Cavendish Square; present

Mr. Beardmore in the Chair
Mr. Perigal
Mr. Doggett
Mr. Walker
Adm. Fitzroy
Mr. Dymond
Mr. Whitehead
Mr. Glaisher
Dr. Thomson

Minutes of the last meeting were read and confirmed.

Mr. Johnson's letter was read in which he resigned the office of President at present

Proposed by Mr. Perigal and seconded by Mr. Beardmore that Mr. Glaisher correspond with Mr. Stephenson and ask him to accept the office of President

The letter was read from the Secretary of the Chemical Society stating that they would leave 5 Cavendish Square after the next Michaelmas

Mr. Perigal reported that he had funded the subscription of 3 life members.

The following was the provisionary list of the President, Vice Presidents and Council for the coming year, omitting those members and officers who have attended the least number of times in the year

President
R. Stephenson Esq. M.P.

Vice Presidents
C. Brooke Esq. F.R.S
Admiral Fitzroy. R.N. F.R.S
J. Lee Esq. L.L.D. F.R.S
J. Sopwith Esq. F.R.S.

Treasurer
H. Perigal Esq. F.R.A.S

Secretaries
J. Glaisher Esq. F.R.S. F.R.A.S
Rev. J. Hill B.A. F.R.A.S

Librarian
W. P. Dymond Esq. F.R.A.S

Council
T. Barker Esq. M.D
N. Beardmore Esq. C.E
A. Brady Esq. M.R.S
Rev. J. Clark M.A
F. W. Doggett Esq.
M. J. Johnson. V.P.R.A.S
J. Moffatt Esq. M.D.
J. Simpson Esq. C.E
Dr. Thomson
C. V. Walker Esq. F.R.S
Capt. Washington R.N
J. C. Whitehead Esq. F.R.S.

Jam: Chas: Whitehead
Chairman

1857 April 28

The Council Met at 5 Cavendish Square

Present

Mr Whitbread in the Chair
Mr Dymond
Mr Beardmore
Mr Brady
Mr Pengel
Mr Beattie
Mr Walker
Mr Glaisher

The Minutes of the last meeting were read and signed

A letter was read from R. Stephenson Esq. M.P. accepting the office of President if elected to it

A letter was read from Rev. J. Vale Resigning his Office of Secretary

On the Motion of Mr Whitbread seconded by Mr Brady, C. V. Walker Esq. F.R.S. was proposed as Secretary

This caused a vacancy in the Council and the Rev. Mr Beattie's name was added, to make up the number

John Lee
Chairman

1857 May 26

The Council met at 5 Cavendish Square

Present

Mr Whitbread
Dr Lee
Mr Beardmore
Mr Walker
Rev. H. Beattie
Mr Symons
Mr Perigal
Mr Glaisher
Mr Tuffnell
Mr Brooke

The minutes of the preceding meeting were read and signed by the Chairman

The List of Officers for the ensuing Year was then further considered.

On the motion of Dr Lee The Chief Baron Pollock was added to the Council
The Rev. H. Beattie was again added to the Council and
Dr Moffat's name was withdrawn. The List of Officers then stood

R. Stephenson Esq President

C. Brooke, Admiral FitzRoy, Dr Lee, & J. Hopwood as Vice Presidents

H. Perigal as Treasurer –
J. Glaisher & C. V. Walker as Secretaries

Council

Dr Barker; N. Beardmore; A. Brady, Rev. H. Beattie; Rev. J. Clark, T. W. Tuffnell, Rev. J. Johnson, J. Simpson, Capt. Washington, S. C. Whitbread, and the Chief Baron Pollock.

Some discussion followed about our future place of Meeting, but a general feeling was expressed that the Chemical Society would allow us to meet in their rooms at Burlington House and the Secretaries were ordered to write again about them to the Secretary of the Chemical Society

Saml. Chas. Whitbread
Chairman –

1857 May 26

A general meeting of the British Meteorological Society was held at 5 Cavendish Square

Dr Lee the President in the Chair

The Minutes of the preceding meeting were read and signed

The Report of the Council was read, and the following gentlemen were balloted for and duly Elected Officers of the Society

R. Stephenson Esq. M.P. President

Vice Presidents

C. Brooke Esq. FRS

Admiral Fitzroy FRS

J. Lee LLD. FRS

T. Sopwith Esq. F.R.S

Treasurer

H. Perigal Esq.

Secretaries

J. Glaisher Esq. FRS

C. Walker Esq. F.R.S

Librarian

W. C. Symons Esq.

Council

J. Barker Esq. M.D.

N. Beardmore Esq. C.E.

A. Brady Esq. M.R.S

Rev. H. Boulter

Rev. S. Clark

J. W. Doggett Esq.

M. J. Johnson F.R.S

J. Simpson Esq.

Dr. Thomson

Capt. Washington R.N.

S. C. Whitbread Esq.

The Chief Baron Pollock

And the following gentlemen were balloted for and duly Elected Members

Matthew Liddell Esq., Benton Grange Newcastle upon Tyne

Ar. Burge Esq. Hammersmith

T. G. Taylor Esq. Lawson Newcastle upon Tyne

J. W. Brown Esq. FRAS Gresham Villa Highgate Middlesex

John Lee. Chairman

1857 October 27

The Council met at the Rooms of Mr Beardmore, 30 Great George Street Westminster

Present

Mr Whitbread in the Chair
Mr Beardmore
Rev. W. Beattie
Mr Dymond
Mr Doggett
Mr Walker
Mr Glaisher

The Minutes of the last Meeting were read and signed

The Secretary read the letter he had recd. from Mr Redwood, as

19 Montague street, Russell Square
July 18. 1857

Dear Sir

Your letter of the 6th June applying on behalf of the Council of the Meteorological Society for permission to hold the Meetings of that Society in the Chemical Society's rooms, in Burlington House, has been laid before the Council of the Chemical Society; I am requested to state in reply, that the Chemical Society have no authority for granting the use of the rooms to any other Society, and that the accommodation the rooms afford is barely sufficient to meet the requirements of the Chemical Society, especially as it is already partly shared with the Linnean Society

I am, dear Sir
Yours truly
Signed T. Redwood –

James Glaisher Esq.

Mr Beardmore reported the result of several enquiries he had made and had caused to be made about Meeting rooms for the Society – Finally it was resolved to appoint a Committee consisting of

Mr Beardmore
Mr Pargeter
Mr Whitbread
Mr Walker &
Mr Glaisher

to make further enquiries and to report at a future Meeting, Mr Beardmore kindly offering the use of his rooms again for the Meeting in November, if not better provided for before ~~that~~ time

John Lee.
Chairman

Read Nov. 24th 1857

Hawarden
Nov. 23. 1857

My dear Mr Glaisher,

If you think the following communication worth your attention I shall feel much obliged if you will read it at the next (Tuesday next) meeting of the British Meteorological Society.

I would have sent it sooner, but the series of experiments were only concluded this morning. The result may be viewed as an important fact. I hope to be able to complete the description of the observations at different heights, as before explained to you, in time for a paper in the present session.

In my paper read at the meeting of the Society on the 25th Nov. last year on ozone observations at different heights, I expressed an opinion that the products of combustion either destroyed ozone, or very much modified its action; and gave a table in which it appeared that the quantity of ozone in the neighbourhood of brick kilns and potteries was at least double on the days on which the fires were not burning, than on days on which the kilns and potteries were active.

From time to time I have put these views to the test of experiment and the test papers attached to this, show the result of my last experiments.

Test papers exposed to the compartment in which an oil lamp was kept burning	Test papers exposed in the compartment in which there was no lamp.
1	1
2	2
3	3

No. one were exposed for about 100 hours and for a few hours the lamp did not burn. Ozone was not in great quantity during these hours. Nos 2 & 3 were exposed for about 14 hours. The lamp had been burnt out for a time before their removal. [illegible]

The box in which the papers were exposed was a large one constructed according to the plan of Mr Price of Wakefield. It was divided by a partition into two equal compartments in one the lamp was kept burning.

J. Glaisher Esqr F.R.S. &c &c

From these experiments then it appears that the products of combustion either destroy ozone, or so completely modify its effects that they become imperceptible. And we can now understand why it is in smaller quantities in large towns and at small heights above the level of the sea than in the open ~~air~~ country and at elevated positions. And as decreasing readings of the Barometer invariably precede the appearance of cirri and the setting in of the Equatorial, or upper current of the air, or accompanying them, we can readily understand why similar readings indicate the approach or prevalence of ~~…~~ ozone periods. And for the same reasons we can understand the disappearance of cirri and ozone with increasing readings of the Barometer and the prevalence of the Polar or lower current of the air. In that the Equatorial or higher current from its height is beyond the influence of combustion, while the lower current or Polar from its sweeping the surface of the Earth becomes intimately mixed with its products.

I am yours very truly

[illegible]

Read Nov 24th 1857

On Sunday Nov. 1. at 5.45 P.M. I saw a very large meteor descend perpendicularly in the S.E quarter of the heavens. It came from behind a thick cloud, and appeared to burst in the horizon. The reflection in the sea was so vivid, that it appeared to make a splash in the water. In size it appeared 5 or 6 times the diameter of Jupiter —

Brighton
Nov. 1. 1857.

J. C. Whitbread

6 o'clock at

us

with chair

meeting were read and

d Mr Beardmore

in respecting rooms of Meeting, and that the Majority of the Council of the Royal Astronomical Society, were favorable to our meeting in that Society's rooms

Mr Beardmore detailed the result of the his exertions, and suggested the application for the use of the rooms of the Institution of Civil Engineers.

A conversation followed, and finally the President undertook to make an application in the name of the Council for the use of their meeting rooms.

R D Thomson

1857 November 24

The Council met at 6 o'clock at Mr Beardmore's rooms

Present

R. Stephenson Esq. in the chair

J. C. Whitehead Esq

J. Lee

H. Pengal

C. V. Walker

J. Brady

The Minutes of the last meeting were read and confirmed

The Secretary stated that Mr Beardmore had made many enquiries respecting rooms of Meeting, and that the Majority of the Council of the Royal Astronomical Society, were favorable to our meeting in that Society's rooms

Mr Beardmore detailed the results of these his exertions, and suggested the application for the use of the rooms of the Institution of Civil Engineers.

A conversation followed, and finally the President undertook to make an application in the name of the Council for the use of their meeting rooms.

R D Thomson

1857 Nov. 24

The Society Met at Mr Boardman's Room

R. Stephenson Esq, in the Chair

Henry John Morton of Wolverhampton, Park field works, was balloted for and duly elected a Member

A paper was read by J. G. Glaisher Esq. F.R.S on the fall of Rain on Oct 22, 1857. The author commenced by stating that the mean amount of rain collected at eight stations in London on Oct. 22nd was 2.7 inches, and it fell nearly as follows:— On October the 21st about 9h. p.m. a thin misty rain commenced; and by 10h. a.m, on October the 22nd, rain to the depth of 0.5 inches was measured; it was at this time still falling steadily, and by 1h. p.m, a second half inch had fallen; and again by 4h. 30 p.m, a third half-inch was measured; it then fell less rapidly, and at 6h. p.m but 0.1 inch additional had fallen. During the next two hours, viz, from 6h. to 8h. p.m, it again began to descend heavily, and by 9h. 20 p.m., 0.3 inch was measured, between 9h. 20 p.m. and 10h. p.m., the amount which fell was 0.02 inch only. Between 10.h and 11. 30 p.m it fell steadily to the amount of 0.5 inch, then for an interval of 20 minutes no rain fell, and finally between 11h. 50 p.m and 12h. 15 a.m when the rain at length ceased, 0.3 inch fell,

giving a total of no less than 2.75 inches or 62,222 gallons, or $277\frac{3}{4}$ tons per acre within little more than 24 hours. The fall over the whole of London amounted to 4853 millions of gallons, or $21\frac{1}{2}$ millions of tons. The author then remarked that there were but four instances at Greenwich of falls equal to or exceeding 2 inches during the last 21 years, viz., on August 23rd. 1843, when the amount was 2.2 inches; on July the 25th 1852 when ~~the~~ it was 2.0 inches; on July 14th 1853 when it was 2.63 inches; and on October the 22nd 1857 - ~~the present~~ when the amount was 2.75 inches. The fall of rain on July the 25th, 1852, amounting to 2.0 inches was stated by the author as being the heaviest fall he had known, one half-inch having fallen in ten minutes, and one inch in fifteen minutes, or at the rate of $4\frac{3}{4}$ gallons per square yard, or 22,600 gallons, or in weight 101 tons per acre, which is equal to 8 millions of tons over the whole area of London. In each of these four instances the wind suddenly changed, and this indicates that these ~~[illegible]~~ great falls of rain have been all attributed to the meeting of two currents of widely different temperatures, and thus the great deposition. The rain on Octr. 22nd fell heaviest in the counties of Cambridgeshire, Hertfordshire, Surrey, Kent and the southern part of Buckinghamshire, the mean amount being 2.69 inches, or the same value as over London —

In Norfolk, Bedfordshire, the northern part of Buckinghamshire, Oxfordshire, Dorsetshire, Sussex, and the Isle of Wight, the mean amount was 1.15 inches; or 33,939 gallons, or 157½ tons in weight of water per acre. In Durham, Gloucestershire, Devonshire and Cornwall, the mean amount was 0.55 inches, or 12,444 gallons, or 56 tons nearly per acre. In the Island of Lewis, Aberdeenshire, and Invernesshire in Scotland, and Northumberland, the eastern part of Yorkshire, Lincolnshire, Worcestershire, and the Isle of Man, and Guernsey, the mean amount over these districts was 0.11 inches, or 2,490 gallons, or 11 tons per acre. The mean amount of rain in Lancashire and the western part of Yorkshire was only 0.015 inch, or 339 gallons, or 1½ tons per acre. In the Counties of Nottingham, Derby, and in Wales generally no rain fell.

A Communication from Dr. Moffatt, of Hawarden, was then read, stating, that from experiments he had just concluded, it appeared that the products of Combustion either destroy ozone, or so completely modify its effects that they become inoperative.

A Communication from J. C. Whitbread Esq. F.R.S. was read on a meteor of an unusually large size, which he said fell into the sea at Brighton on Nov. 1 at

5.45 pm

R D Thomson

1858 January 20

The Council met for the first time at the Rooms of the Institution of Civil Engineers

Present

Dr Thomson in the Chair
Mr Beardmore
Admiral Fitzroy
Mr Doggett
Mr Briggs
Rev. Mr Bodkin
Mr Bergel
Mr Walker
Mr Glaisher

The minutes of the last meeting were read and confirmed

The Secretary stated that the following letter had been received from the President, addressed to Dr Lee 24 November 1857

My dear Dr Lee

The Council of the Institution of Civil Engineers authorise me to say, that their rooms are at the service of the Meteorological Society, It is only necessary for the Secretaries to meet and make the needful arrangements

Signed Robert Stephenson

Mr Beardmore, and Mr Whitbread having been deputed to make arrangements did so and they also arranged the nights of Meeting in accordance with the convenience of the Institution of Civil Engineers No meeting could be held in May on account of the annual Soiree, The days as falling best the Institution days of Meeting were as

follows

Wednesday March 24
June 9 for annual Meeting
Nov. 17

---

for Council
Feby 24
Mar 24
Apl 28
June 9
Oct 27
Nov 17

These times of Meeting were sanctioned by the Council, and it was resolved to act upon them till the annual General Meeting in June for Confirmation

It was resolved that the best thanks of the Council be given to the Institution of Civil Engineers.

It was resolved to have some Cards printed for the admission of Visitors to our Meetings of Members

Robt Stephenson

Brit. Met. Soc.
(Inst. Civ. Eng.)

Feb 24. 1858.

Council Meeting.

Present;
R. Stephenson Esq. M.P. President in the Chair.
~~Dr Thomson~~, Messrs Whitbread, Diamond, Doggett, Perigal, Beardmore, Sopwith, Walker, Glaisher, Drs Thompson & Barker, & Rev. J. Beattie

It was resolved that a circular letter be printed and sent to all members, directing their attention to the annular eclipse of the Sun of March 15, and requesting them to communicate to the Society any observations they may be enabled to make.

The letter to suggest that Barometer readings should be made occasionally; that the Thermometers &c. be observed every five minutes; the black bulb being exposed to the sun's rays & the wet and dry in the shade

The above observations to commence half an hour before & terminate half an hour after the eclipse.—

Notice to be taken if animals manifest any uneasiness & if vegetation is affected in any way.

The sun to be observed especially as to the form and position of the red flames. Either with or without a telescope, as the case might be.— Any other observations that suggest themselves, to be made.— Times to be recorded.—

The Secretaries were instructed to prepare & circulate the letter.

—

The attention of the Council was directed to the present condition of the Society's Library, some of the books being in Doctors Commons, others in Cavendish Square and elsewhere; and it was considered very desirable that they should be collected into one place and arranged.—

Mr Beardmore had very kindly offered to receive them at his Apartments in Great George Street. – The President also kindly said that he could devote a place to them in his Offices. –

Mr Beardmore undertook to arrange with the President for the accommodation of the Library. –

It was then Resolved that a Committee be formed consisting of Mr Beardmore & the Librarian to collect the books; & that the Librarian do make out a Catalogue of the same to lay before the Council. –

The Meeting then adjourned.

British Met. Soc.

Council Meeting. June 9. 1858.

Present:– R. Stephenson Esq. M.P. President, in the Chair.– Jas. Glaisher & C. V. Walker Secretaries.– Messrs Whitbread, Lee, Beardmore, Brady, Doggett, & Sopwith. Admiral Fitzroy & the Revd. H. Beattie.

The minutes of the last Meeting were read and Confirmed.–

By oversight, the list of proposed new Council was not brought before last Meeting. Mr. Glaisher now submitted it. The only new member was Dr. Tripe, in place of Chief Baron Pollock.– The list proposed stands thus;

— (insert new Council here)

Report from Library Committee was read. £10 was requested to be expended in binding.– The Report was adopted, & the grant approved.

Mr Glaisher read Abstract of the Annual Report.– Admiral Fitzroy undertook to furnish a paragraph in addition.– The Abstract was approved as the basis of the Report, which was left in the hands of the Secretaries to prepare in extenso.

The Treasurer was not present. The question of arrears was brought before the Council.

Mr. Whitbread, who had been very successful in like exertions on

behalf of the R. Astronomical Society, kindly undertook to advise with the Treasurer in respect to the arrears of subscriptions, and to adopt with him such steps as they might deem necessary in order to collect them in.

The Council accepted the offer, and gave the necessary authority.

The Librarian was requested to write to Foreign Societies, for copies of their ~~work~~ Publications; and to learn the best means of forwarding & receiving books.

For Min: of Gen: Meetg June 9 1858 – see next leaf

October 27th 1858.

Council Meeting

The Council met at 5h. 15m p.m at 25 Gt. George St Westminster

Present – R. D. Thomson Esq in the chair at the first part, and Admiral Fitzroy Vice-President, at the latter part of the Meeting – ~~Dr Lap~~ Messrs. Sopwith, Drummond, Beardmore, Pouzal, Brady, Walker & Glaisher; Revds. H. Beattie & J. Clark; and Dr. Tripe.

The minutes of last meeting were read and confirmed.

The Council arranged that the evenings of Meeting for the ensuing year, should be as follows:–

General Meetings.

Wednesday –	January 1858 –	19th
"	March	23rd
"	June	8th
"	November	16th

The Election of Officers to take place on June 8th

Meetings of Council

Wednesday –	January 1858 –		19th
"	February	"	23rd
"	March	"	23rd
"	April	"	27th
"	June	"	8th
"	October	"	26th
"	November	"	16th

The Secretary read a letter from Mr. Scott of Sydney, stating that 11 Meteorological Observatories were established in N. S. Wales.

Admiral Fitzroy then remarked

The Secretary stated that he had received 50 copies of the Observations taken at the Observatory of Demerara in British Guiana, for distribution among the Members of the British Meteorological Society. After some discussion the distribution of the Books was left to the discretion of the Secretaries.

A letter from the Secretary of the Royal Society of Arts, Jamaica, was then read, stating that an unbound set of the three published volumes of their Transactions, had been sent, and expressing a desire for co-operation with this Society. It was resolved to propose M. Garcia del Rio, the Secretary, as an Honorary Member at the next meeting of the Society.

The Secretary brought forward the correspondence with the Registrar General, & Government, relative to the prohibition of the distribution of the Quarterly Reports to the Society's Observers, and the thanks of the Council were awarded to Dr. Barker for his exertions in obtaining a reversal of the Treasury minute.

A letter from the British Pomological Society was read, & handed to Librarian to answer.

The Librarian reported on the state of the library, and laid before the Council the Bills for Binding, and also exhibited specimens of works which had been bound.

Mr. Beardmore undertook to get the addresses of the Society, and its Secretaries, inserted in the Post Office Directory.

British Meteorological Society.

June 9th 1858

General Meeting

The Society met at 25 Great George Street Westminster. R. Stephenson Esq. M.P. President in the chair.

G. A. Rogers Esq. Professor Kingston, and R. L. Harris Esq. were balloted for and duly elected Members of the Society.

The Report of the Council for the past year, was read by Mr. Glaisher.

The following papers were then read; — 'On the Hourly Meteorological Observations at Greenwich in 1856' by S. M. Drach Esq. — 'On the Thunderstorms in 1857' by G. J. Symons Esq. — 'On the Periodical Phenomena of the years 1855, 1856, and 1857, as tabulated and arranged from the Monthly Returns of the British Meteorological Society' by J. Glaisher Esq.

T. Thomson
R. Forbes Esq. Culloden

Council Meeting.
Nov. 16 1858.

Present: Mr Beardmore in the Chair.

J. Glaisher, Walker, Beardmore, Brady, Doggett, Dr Tripe, Perigal, Dymond,

~~4 ... 2 ...~~ 5.30 p.m.

Minutes of last meeting were read & confirmed

Letter to Presid Socy from Dr Barker with printed copies of the Correspondence respecting the Registrar Genl Reports.—

Mr Glaisher read form of letter to Civil Engineers, for the application for Room & Models for use during that year.— A form was prepared & signed by the Secretaries and ordered to be sent..

The printing of the Forms, as arranged by Mr Glaisher, was ordered to be ~~printed~~ done.

Dr Thomson
A. Forbes Esq Culloden

British Meteorological Society.

Council Meeting

19th January 1857.

R. D. Thomson Esq. M.D. in the chair.
Present – Messrs. Beardmore, Brady, Doggett, Dymond, and Glaisher; Admiral Fitzroy, and Dr. Tripe.

The Names of those Members who had received Copies of the Demerara Observations, were read by Secretary; and the distribution of the remainder, was left in the hands of Mr. Glaisher.

Secretary read letter from Mr. Johnson, of Oxford Observatory stating that 12 Copies of the Radcliffe Observations for 1856, had been sent for distribution amongst ~~those~~ ~~such~~ Members of the Society, as the Council thought proper. It was resolved that Mr. Johnson be applied to for 3 more Copies, & that in case these were received, one Copy should be sent to each Member of the Council.

Mr. Glaisher asked opinion of Council, as to whether the Society should, take any part in the investigation of the Temperature of the Air by means of Balloon-Ascents. It was resolved that a Committee be appointed to correspond with the British Association and that the Committee should consist of Admiral Fitzroy, ~~and~~ Dr. Thomson, and Mr. Glaisher.

Dr. Thomson
A. Forbes Esq. Culloden

Copies of the Demerara observations have been sent to the following Members.

W. G. Barker Esq. Worthing
J. Shellabear Esq. Holkham,
B. Barrow Esq. Ryde,
Revd. F. Redford, Silloth,
W. C. Burder Esq. Clifton
Mr. Saml. Horton Hartwell
W. H. Milner Esq. Wakefield
Dr. Moffatt Hawarden,
W. Brooke Esq. Norwich
H. Wortham Esq. Royston;
J. Arnold Esq. ~~Little Bridy~~ Aldershotts
Revd. J. M. Heath Enfield
W. Johnson Esq. Bicester
Revd. J. Slatter Rose Hill.
W. Squire Esq. Berkhampstead
~~Revd. A. Weld~~
G. F. Burder Esq. Clifton.
D. Tennant Esq. Pittenweem
J. H. Barker Esq. M.D. Bedford
Dr. Hoskins Guernsey
T. J. Bewick Esq. Allenheads.
J. Rock Esq. Hastings
W. Ingram Esq. Belvoir
J. W. Jeans Esq. Grantham
G. C. Atkinson Esq. West Denton
R. J. Stedman Esq. Sharnbrook
W. D. Ellis Esq. Exeter
Mr. Ester Little Bridy

J. Sopwith Esq.
Revd. H. Beattie
Revd. J. Clark
W. P. Dymond Esq.
Dr. Tripe
N. Beardmore Esq.
H. Perigal Esq.
C. V. Walker Esq.
A. Brady Esq.
~~Thomson~~
A. Forbes Esq. Culloden

(12 to be disposed of)